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The Archaeology of the Camden Battlefield: History, Private Collections, and Field Investigations

Steven D. Smith
University of South Carolina - Columbia, smiths@mailbox.sc.edu

James B. Legg
University of South Carolina - Columbia, leggj@mailbox.sc.edu

Tamara S. Wilson
University of South Carolina - Columbia, tawilson@mailbox.sc.edu

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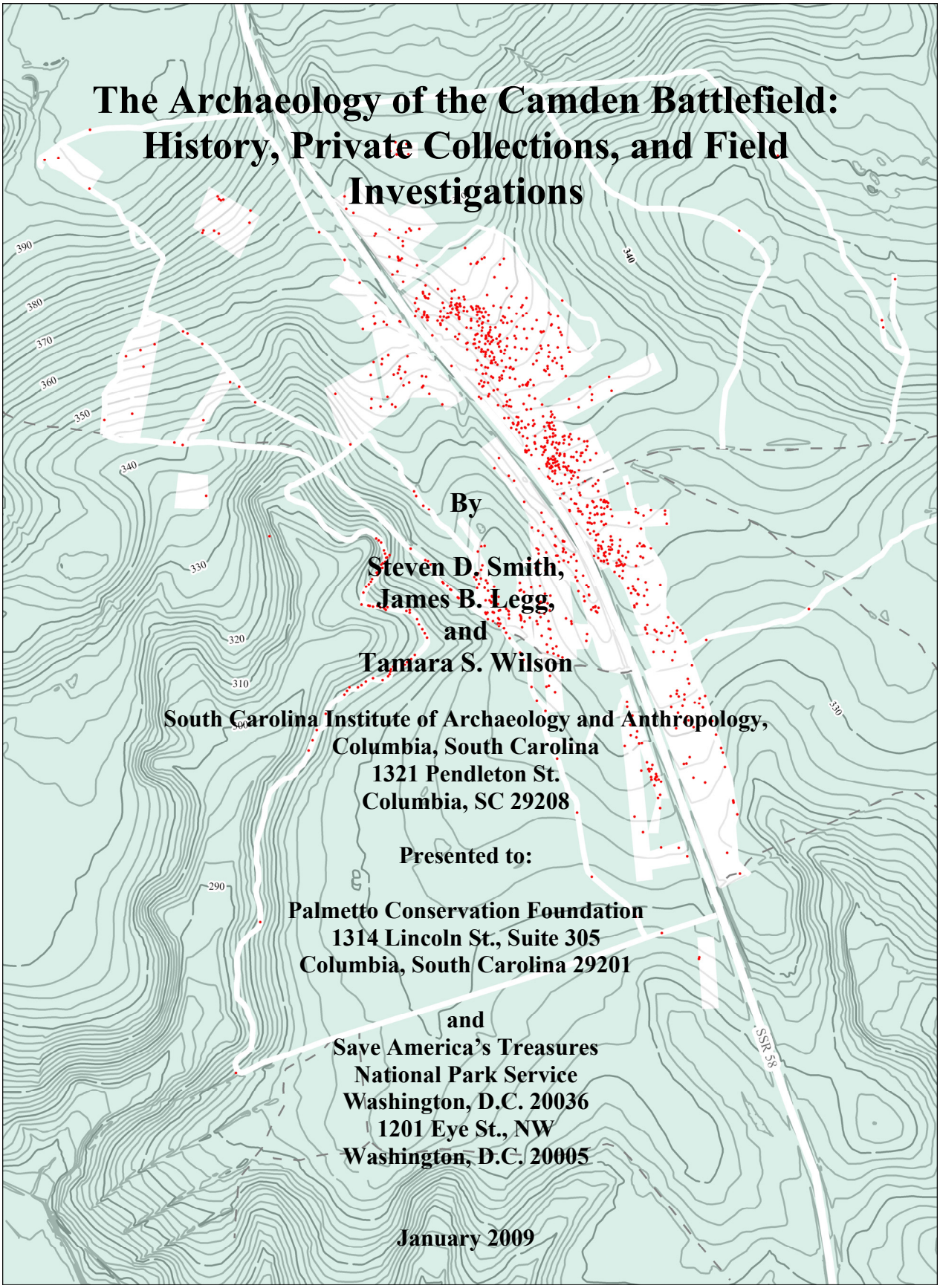

By

Steven D. Smith,
James B. Legg,
and
Tamara S. Wilson

South Carolina Institute of Archaeology and Anthropology,
Columbia, South Carolina
1321 Pendleton St.
Columbia, SC 29208

Presented to:

Palmetto Conservation Foundation
1314 Lincoln St., Suite 305
Columbia, South Carolina 29201

and
Save America's Treasures
National Park Service
Washington, D.C. 20036
1201 Eye St., NW
Washington, D.C. 20005

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Principal Investigator

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Management Summary

This report presents the results of battlefield archaeology at the site of the Revolutionary War Battle of Camden, August 16, 1780, located in Kershaw County, South Carolina. The analysis of historic documents, an intensive, controlled metal detector survey, and relic collector artifacts are combined to present an interpretation of the battle as it unfolded across the landscape.

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A large silent partner in our work is the Battle of Camden Project. We urge readers to visit their outstanding web site www.battleofcamden.org. Among many within this group we want to point out Mr. Lindsey Pettus, of the Katawba Valley Land Trust, Mr. Charles B. Baxley, President of the Kershaw County Historical Society, and Ms. Joanna B. Craig, Director of Historic Camden Revolutionary War Site. Lindsey, Charles, and Joanna are in the front lines of Kershaw County preservation efforts everyday. Thanks to each of you for all the assistance you have provided. We also thank John A. Robertson, David Reuwer, Dr. Bobby Moss, John R. Maas, and Tony Scotti—just some of the many people who worked with the various archaeological and historical project to date.

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Despite all this expert assistance, remaining errors remain the authors' responsibility.

CHAPTER 1:
ARCHAEOLOGICAL INVESTIGATION OF THE BATTLE OF CAMDEN

Introduction

This report is presented by the South Carolina Institute of Archaeology and Anthropology (SCIAA) to the Palmetto Conservation Foundation (PCF) and the National Park Service-National Trust for Historic Preservation, Save America's Treasures Initiative (SAT). It details the results of an archaeological survey of the Camden Battlefield (Figure 1.1, 1.2). The purpose of this survey was to delineate battlefield features associated with the Revolutionary War Battle of Camden. This report continues and builds on archeological research that began in 2001 with a comprehensive survey of artifact collections recovered by relic collectors since the 1970s (Legg, Smith, and Wilson 2005) and a strategic plan for preserving the battlefield (Fields, Smith, and Legg 2003). Since these reports, a battlefield restoration program has commenced, and a professional archaeological survey has been completed along with additional interviews with relic collectors. This report serves as a companion to the Legg, Smith, and Wilson report (2005).

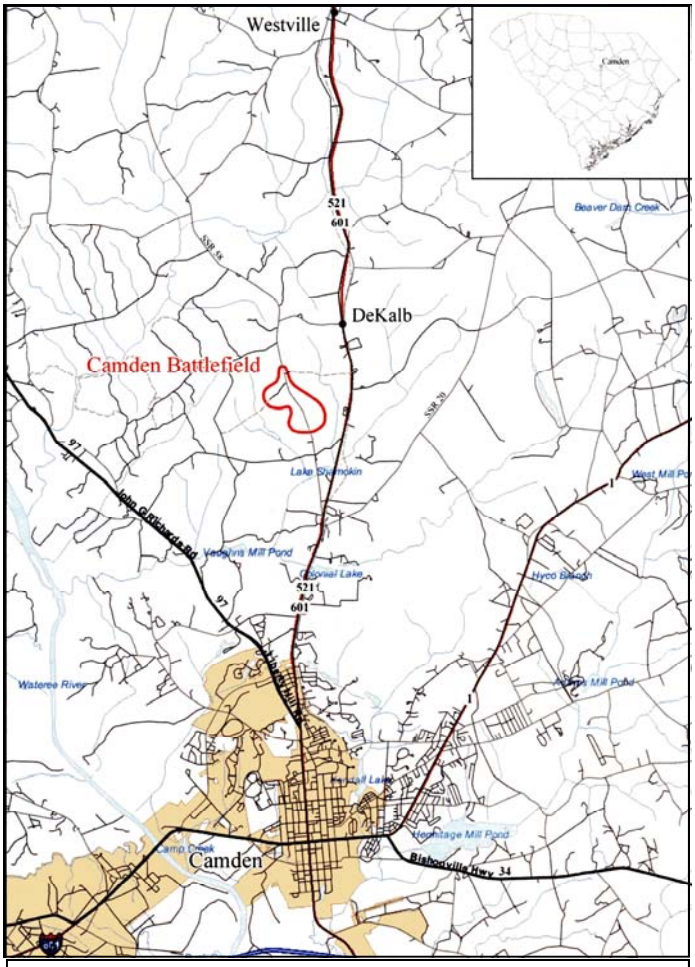


Figure 1.1 Location of Camden battlefield.

Specific Project Goals

For this particular project, the SCIAA was charged with the following project goals:

1) Review and analyze the archaeological findings and features previously identified under American Battlefield Protection Program (ABPP) grant #GA-2255-03-015, which included a detailed analysis of twelve private collections and a metal detector survey completed in 2004. This work was detailed in Legg, Smith, and Wilson (2005).

2) Prepare a Project Research Plan for approval by the PCF and SAT Initiative at the National Park Service.

3) Based on Legg, Smith and Wilson (2005), conduct a GPS piece-plotted intensive metal detector survey within designated plots assessed as having the most potential for military artifacts and unmarked graves. The designated plots survey was supposed to total at least six acres (2% coverage of 316 acres currently protected). After analysis of the findings, the SCIAA was to assess the potential for finding artifacts in other areas, and recommend to PCF how and where ground penetrating radar surveys could be used to locate unmarked graves.

4) Conduct ground penetrating radar survey in areas with best potential for unmarked graves.

5) Recommend a plan to PCF for marking and preserving graves that complies with state and federal laws and preservation policies.

6) Complete an archaeological survey report to include detailed base map data with GPS locations of all located cultural features in a GIS file, a master catalog of artifacts recovered during the survey, an analysis of survey findings, interpretive analysis, and recommendations for future projects.

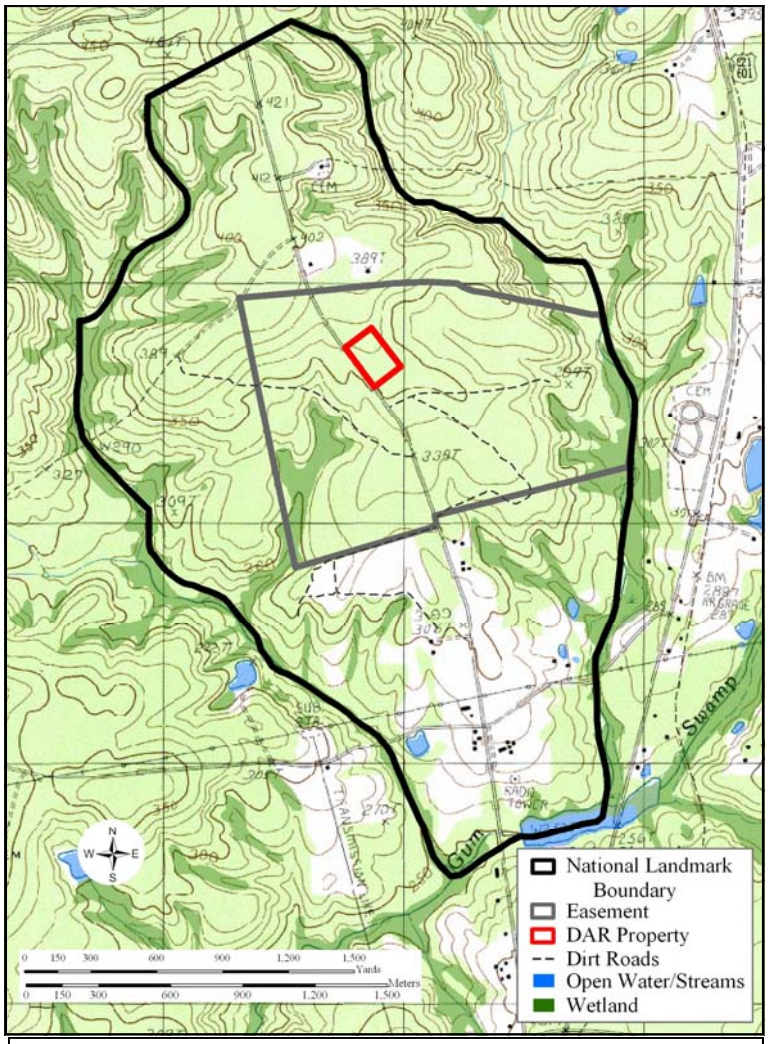


Figure 1.2 Camden battlefield depicting National Landmark Boundary, Easement, DAR property and modern topographic features.

Previous Research

The first known professional archaeological investigation of the Camden battlefield was attempted in 1998 when James Legg conducted a volunteer effort over two weeks to sample the site's archaeological potential (Legg 2000). The impetus for this work was the unexpected logging of parts of the site and the immediate danger posed by unauthorized collecting. The results of this work were incorporated into Legg, Smith, and Wilson (2005).

In 2001 and 2003 two grants were awarded to the SCIAA to conduct a survey of artifact collections in the hands of private collectors, and also conduct limited systematic metal detector sampling of selected battlefield areas (Legg, Smith, and Wilson 2005). Both efforts were awarded by the PCF, and funded by the American Battlefield Protection Program (ABPP), of

the National Park Service**.** The specific goals of the first project included: 1) assisting the PCF in reviewing information from collectors regarding artifact locations from previous metal detecting to define the overall battlefield, core area, features, battle lines, and burial grounds; 2) assisting PCF in developing a GIS battlefield base map, using data gathered in Task 1; 3) inspecting, identifying, and analyzing collectors' artifacts; and, 4) making recommendations for future archaeological research and park interpretation. A detailed battle history was necessary for site interpretation, and this was prepared as a 5th task. The project's first phase results were reported as part of a strategic plan for the preservation of the National Historic Landmark, Battle of Camden site (Fields, Smith, and Legg 2003). Specific tasks for the second grant were to: 1) continue analysis and interpretation of private collections obtained from the Camden battle site; 2) advise the PCF in developing a plan for a two-foot interval topographic base map for the entire 1,300-acre Camden battlefield National Historic Landmark; 3) conduct a limited controlled, GPS-plotted, metal detector sampling survey totaling three acres; and, 4) complete a report of findings to include survey results and analysis of seven private collections. Given that it was necessary first to identify and then interview and arrange battlefield visits with collectors, it took three years (2002-2004) to complete the project with 12 collections inventoried. Many site visits and interviews were conducted on weekends when collectors were available. Likewise, the controlled metal detector survey was conducted intermittently over a two month period in February and March 2004, when personnel were available.

The 12 relic collections provided valuable information about the two armies' locations at the beginning of the battle and intriguing data about how the battle may have unfolded. Critically, the combined relic collection data confirmed the location of the front lines of both armies as had been hypothesized based on historical documents. In addition, the data appeared to support the hypothesized retreat route of the 2nd Maryland Brigade and its subsequent destruction.

The systematic metal detector surveys by archaeologists up to 2005 totaled approximately 35,000 square meters (8.64 acres). Overall, the data from these surveys supported the conclusions drawn from the collector's data. Another goal of the metal detecting was to determine if sufficient material culture still existed for future interpretation. The artifact recovery totals from the 1998 and 2004 metal detecting projects were modest, with the exception of the surprisingly productive Area 22 around the Camden monument. A total of 235 battle related artifacts were recovered. That same density of material extrapolated across the entire battlefield represented a significant material record of the Battle of Camden indicating that battlefield archaeology, in spite of heavy impacts from relic collecting, still had the potential to add to our knowledge and interpretation of the battle. For this reason, the present project was designed to build on earlier work and to increase the area of coverage.

The limited archaeological metal detecting survey was the *only* hard data available for battlefield ammunition distributions. It was obvious that the previous research, in combination with the proposed work and relic collector data, would provide sufficient data to aid interpretation, and improve our understanding of the material used by British and American forces in 1780. We believe this report demonstrates these contentions.

General Methods

The following general methods were used, discussed in order of the tasks noted above. Specific field methods for metal detecting are discussed in Chapter 4. The GPR and burial methods are discussed in a separate report (Smith, Legg, and Leader 2009).

1) Review and analyze findings from previous archaeological investigations, including additional informant collections.

The Principal Investigator and Project Archaeologist reviewed all previous archaeological and collector survey data. Five additional collectors known to have significant collections had not been available during the previous effort (Legg, Smith, and Wilson 2005). Unfortunately, of the five, only two collectors were interviewed and their collections added to the inventory. Two other collectors died during the course of the project. The final known collector would not cooperate. No other collectors have come forward and it is believed that, given the amount of public knowledge about the project within the collector 'community,' it is likely that those with sizable collections and who are willing to be interviewed already have come forward. The two collections that were inventoried are discussed in Chapter 3. Both were large, early (1970s and 1980s), collections and their contributions to the data base were significant.

2) Project Research Plan.

The research plan was completed and provided to the Palmetto Conservation Foundation and Save America's Treasures under separate cover.

3) Conduct a GPS piece plotted, intensive metal detector survey in survey blocks assessed as having the most potential for defining military artifact distributions and unmarked graves remaining on site.

As proposed, six new acres or 2% of the 316 protected battlefield acres were targeted during this survey. The proposed six acres were selected from a total of 8.39 acres (Figure 1.3). The planned areas included ten 20 x 100 meter sample blocks totaling 20,000 square meters, and two larger areas totaling 8,000 square meters. The difference between the minimal amount (six acres) and the proposed amount (8.39 acres) was due to the possibility that some planned acreage would be impossible to survey or unproductive due to surface and buried non battle related modern refuse that mask battle related artifacts (this occurred during the 2003 survey in area 27, Figure 1.3). The survey blocks were selected based on: 1) previous research and coverage; 2) information provided by private collectors; 3) a broad dispersal of the sampling areas so as to investigate selected portions of the entire battlefield; 4) hypothesized potential to add to our interpretation; and 5) landscape management decisions made by PCF. The last criteria pertained to the large area between previously surveyed area 22 and 25 (Figure 1.3). That area was in the process of being cleared of small brush and trees to enhance the battlefield interpretive program.

In fact, as will be explained in detail in Chapter 3, the fieldwork covered approximately seven of the 12 proposed areas, but the total area covered by the fieldwork was 460% larger

than the six acres planned (and budgeted). This was due to controlled burning and other clearing activities by PCF that created ideal metal detecting conditions over large areas. Since our previous metal detecting survey demonstrated significant remaining battlefield artifacts, it was imperative that as much of this land be covered by professional survey as possible or it would have undergone unauthorized collecting. The exact areas and acreage covered by controlled metal detecting are discussed further in Chapter 3.

The GPS piece plotted controlled metal detecting survey consisted of flagging a blocked area on the ground, walking adjacent transects while sweeping the ground with the metal detector and plotting finds with a GPS instrument. The exact methods are explained in Chapter 3.

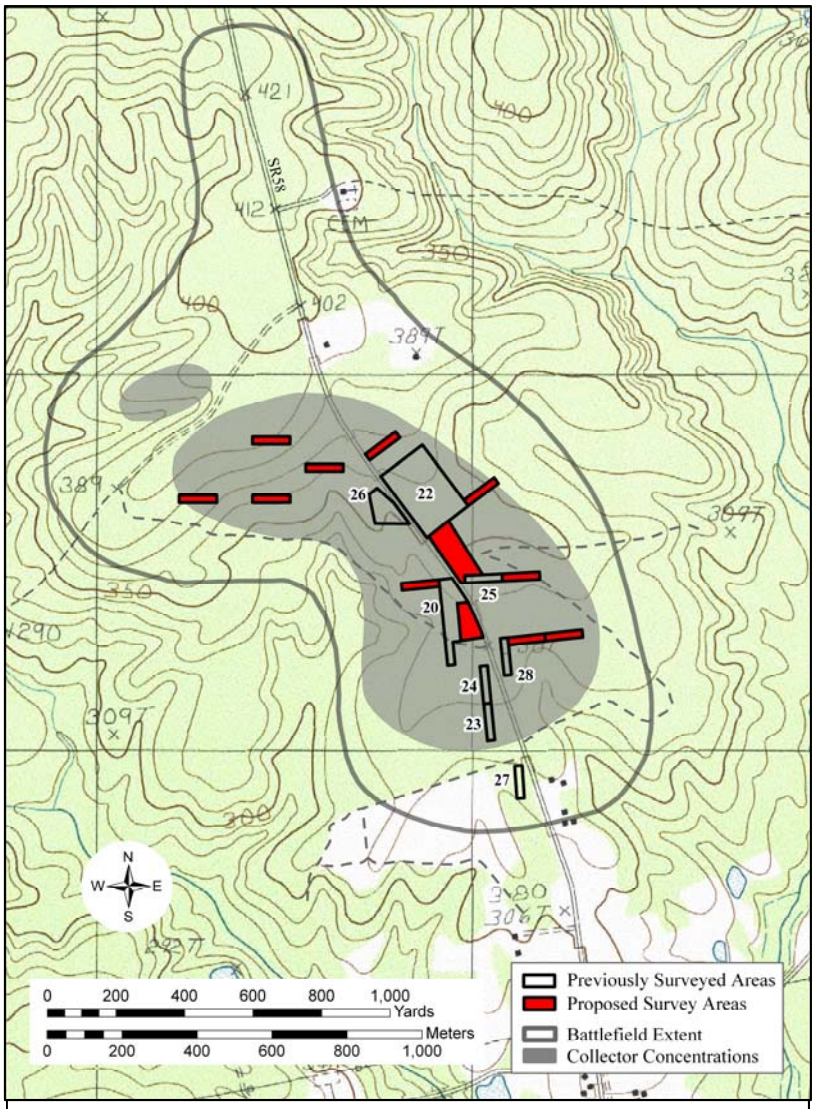


Figure 1.3 Location of proposed survey areas for SAT metal detector survey of the Camden battlefield.

4, 5) Conduct ground penetrating radar (GPR) in areas with most potential for unmarked graves. Recommend a plan for marking and preserving graves that comply with state and federal laws and preservation policies.

At least three different grave sites were known from collector interviews. These locations were surveyed using GPR to see if the graves would actually be visible with GPR. If so, it offered the potential to find other unknown graves that must have been dug shortly after the fighting. The GPR survey was not successful. However, we were able to locate two of the burials using trenching and conducted excavations to expose and confirm the burials. The results of the GPR survey are presented as a separate report (Smith, Legg, and Leader 2009).

6) Complete an archaeological survey report to include detailed base map data with GPS locations of all located cultural features in a GIS file, a master catalog of artifacts recovered, an analysis of survey findings, and recommendations for future projects.

This report serves to meet goal 6. Chapter 2 presents a history of the battle and is a revised and slightly expanded version of the historic context (Chapter 2) in Legg, Smith and Wilson (2005). Chapter 3 provides an update of the relic collector data with the new collector materials incorporated. Chapter 4 presents the methodology and results of the archaeological survey to include survey coverage and artifact distribution maps. During the course of the project, PCF was able to contract for a complete two foot contour map of the battlefield using photogrammetric methods from aerial photography and generate the map in AutoCad® software. Using this two foot contour map as a base, GPS data from all artifacts collected to date, from all previous work and the present survey, was projected onto a series of distribution maps based on artifact categories and types that have interpretive potential. Chapter 5 interprets the battle from the combined archaeological and historical data and includes a series of maps depicting four battle phases.

The Physical Setting of the Camden Battlefield

The Battle of Camden site is located eight miles north of modern Camden, South Carolina, nearly a mile north of Gum Swamp Creek, on both sides of State Road 58 (Figures 1.1, 1.2). This project's study area may be defined within three different boundaries (Figure 1.2). The smallest is a six-acre property formerly owned by the Daughters of the American Revolution (DAR) that includes a parking area, a monument to Baron de Kalb (Figure 1.4), a National Historic Landmark marker, and a South Carolina Highway Historic Marker. Surrounding this is property owned by the Palmetto Conservation Foundation, with an easement owned by the Katawba Valley Land Trust. The property encompasses what is believed to be the core of the battlefield. This property and the DAR tract total about 316 acres. The PCF tract is in pine forest, much of it recently clear-cut and replanted. Longleaf pine has been replanted as part of an effort to restore the landscape to its 1780 appearance. Surrounding the PCF tract is a 1,229-acre area (inclusive) that defines the National Historic Landmark. This includes pine plantation, open pasture, private homes, a church, cemetery, communications tower, power line, and an unoccupied building complex that formerly housed a county chain gang (Fields, Smith, and Legg 2003).

Figure 1.4 DAR monument to Baron de Kalb erected in 1909.

The local topography is critical to understanding the battle, as eyewitness accounts (see history) describe terrain features that help locate participating units on the present landscape. State Road 58, generally following the historic route used by both armies, bisects the battlefield. Traces of the original road still exist about 10 yards east of

the modern road, running through the DAR property to a point about 100 yards south. The road traverses an upland area between drainages to the east and west that gently slope from north to south. At the battlefield's northern extent, the elevation is 402 msl, and it drops to 306 msl about a mile down slope, the approximate south end of the battlefield. On the battlefield's extreme north end, the road crosses a narrow ridge, about 300 yards wide, but the terrain then opens to a plain some 1,600 yards wide just north of the de Kalb monument. South of this broad plain, the landscape narrows again, constricted by swampy drainages on either side. The width of the plain here is about 1,200 yards. Traditionally, this is believed to be where the main battle lines were formed. South of this point, the ridgeline falls gently into the Gum Swamp Creek floodplain.

The Camden battlefield is near the western edge of the Sandhills physiographic province, and soils are primarily sand - Blanton, Lakeland, and Wagram types. The historic ground cover was a longleaf pine-wiregrass association. At the time of the battle, the old-growth longleaf pines were thick and tall, with the first limbs as much as 30 feet to 40 above the ground surface. Wiregrass covered much of the otherwise open forest floor, and an eyewitness account claims that it was waist high in some places (see Chapter 2). Today, the forest floor has an understory of young pines and blackjack oaks, and some sections exhibit thick growths of briars, hawthorn, sumac, wild raspberries, and strawberry bush. The swamp areas are overgrown with fetter bush, holly, sheepkill, myrtle, swamp azalea, muscadine, and greenbrier (Mitchell 1989).

The Battlefield Since 1780

The land use history of the Camden battlefield since 1780 is essential to understanding the archaeological resource today. In 1786, a visitor reported that "shattered trees, and the unburied bones of men and horses" were still visible, but an 1830 visitor reported that not a vestige of the battle remained (Whitfield 1980: 56). Historian Benson Lossing examined the Camden battlefield in January, 1849, and provided the first substantial description of the site:

> The hottest of the engagement occurred upon the hill, just before descending to Sander's Creek [Gum Swamp Creek] from the north, now, as then, covered with an open forest of pine-trees. When I passed through it, the undergrowth had just burned, and the blackened trunks of the venerable pines, standing like the columns of a vast temple, gave the whole scene a dreary, yet grand appearance. Many of the old trees yet bear marks of the battle, the scars of the bullets being made very distinct by large protuberances. I was informed that many musket balls have been cut out of the trees; and I saw quite a number of trunks that had recently been hewn with axes for the purpose. Some pines had been thus cut by searchers for bullets that must have been in the seed when the battle occurred. Within half a mile of Sanders Creek [Gum Swamp Creek], on the north side, are some old fields, dotted with shrub pines, where the hottest of the battle was fought. A large concavity near the road, filled with hawthorns, was pointed out to me as the spot where many of the dead were buried (Lossing 1855: 460).

This suggests that parts of the battlefield's southern end were already in fields in 1849, and the site of a mass grave was known. The south end of the battlefield is actually nearly a

mile from Gum Swamp Creek, however. Unfortunately the only map accompanying Lossing's description is a version of the 1787 Faden Map (see Chapter 2).

The Camden battlefield was still substantially wooded at the beginning of the twentieth century, but Camden historians Thomas Kirkland and Robert Kennedy reported that the character of forest had changed:

> If one today, in leafy August, were to visit the scene of the battle, he would exclaim: "Here indeed was a veritable 'war of the woods.'" It has always been known locally as "Parker Old Field," because of its ownership in former days by one Parker, although there are none of those badges in the vicinity always indicative of old fields. The present adjacent clearings are undoubtedly comparatively recent. At the date of the battle the ground was occupied by a close array of tall and stately pines, limbless to a height of forty or fifty feet. These, by the process of turpentining, have been reduced to a scanty few, so that not many of those remain that witnessed the battle. Their thinning has allowed to come up a growth of scrub oaks, which in summer obscure the view much more than did the pines.... Those living in that neighborhood have found amongst the leaves of the woods many an old buckle, button, bayonet, bullet, cannon ball, flintlock, and to this day diligent search will reveal some such *disjecta membra* of the encounter (Kirkland and Kennedy 1905: 169).

Kirkland and Kennedy found "grape shot and bullets in half-burnt and decayed trees" (Kirkland and Kennedy 1905:162n). The map of the Camden battlefield prepared by Kirkland and Kennedy (1905:160) does not indicate which areas were wooded and which were cleared. Their map does show the location of the "Pine where De Kalb lay wounded," which was replaced by the monument to Baron de Kalb erected by the Hobkirk Hill Chapter of the Daughters of the American Revolution in 1909 (Whitfield 1980: 58-61).

Whitfield (1980:59n) notes that a newspaper photograph of the battlefield taken around 1910 "reveals that that there were a few clearings at the site," and that a 1918 tourist guide reported that it "is largely wooded ground." In March 1929, Lt. Col. H.L. Landers visited the battlefield while researching a history of the battle he prepared for the War Department (Landers 1929). Landers' battlefield map (1929:40) (see Figure 2.4) is essentially copied from that of Kirkland and Kennedy (1905:160), but it does show nearly all of the battlefield south of the present DAR property as no longer wooded in 1929. Whitfield, however, indicates considerably less clearing as late as 1941:

> During the 1920's or early 1930's a family named Hearon acquired a tract of land on the east side of Route 58, a few hundred yards south of the De Kalb marker. Years later, J.W.Z. Hearon, who had helped to farm the land as a boy, recounted how he had collected buckets full of musket balls from the soil.... An Aerial photograph taken on January 29, 1941 shows a house, a barn, several smaller structures, and approximately 40 acres of cultivated land. With the exception of a few scattered clearings, however, the rest of the battlefield remained woodland (Whitfield 1980:65n).

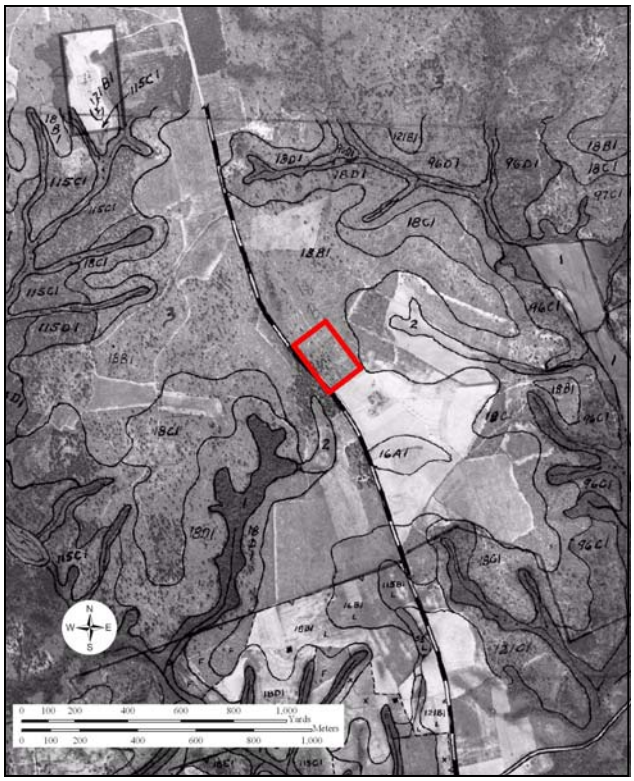


Figure 1.5 Aerial photograph of Camden battlefield in 1949, DAR park in red (courtesy Thomas Cooper Library, USC).

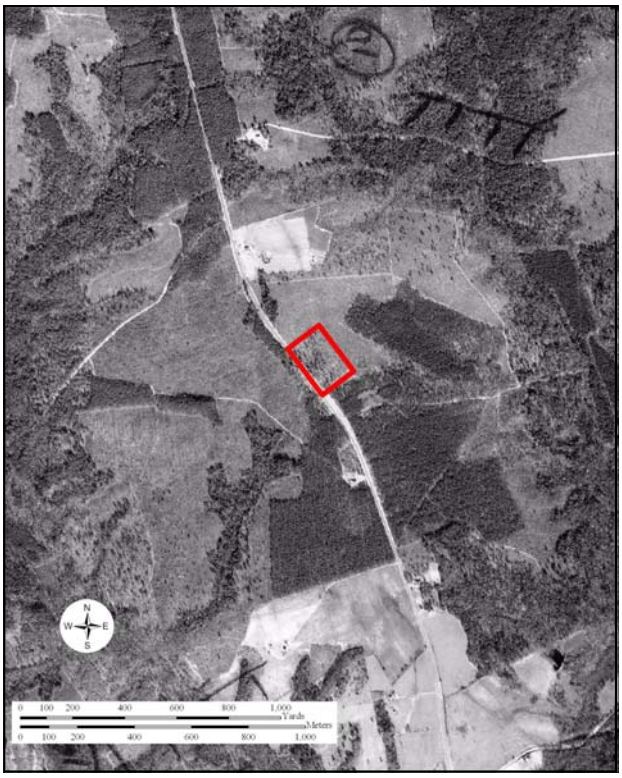


Figure 1.6 Aerial photograph of Camden battlefield in 1964, DAR park in red (courtesy Thomas Cooper Library, USC).

In 1930, the Hobkirk Hill Chapter of the DAR secured an option to buy 425.5 acres of the battlefield for about $6500.00, but the land was not purchased. In 1942, the chapter did acquire five additional acres around the de Kalb monument, adding to a single acre acquired in 1912 (Whitfield 1980:64,65).

An aerial photograph taken in 1949 (Figure 1.5) shows nearly all the battlefield south of the DAR property under cultivation, while north and west of the DAR property as woods or pine savannah. By 1964 (Figure 1.6), the 1949 fields and the farm east of Route 58 are in pine plantation, while formerly wooded areas have been timbered, but are not agricultural fields. The DAR property stands out as a small rectangle of original (if thinned) longleaf pine forest. Figures 1.7, 1.8. 1.9 show the battlefield after a massive clear-cutting program completed in 1998.

In summary, it is clear that the vegetation on the battlefield has gone through several changes since the battle, but the topography has remained the same. Furthermore, relic collecting at the battlefield began immediately after the battle and has continued since that time.

Project History

The first known archaeological investigation of the Camden battlefield under the direction of professional archaeologists was attempted in 1998 when second author, James Legg

conducted a volunteer effort over two weeks to sample the area's archaeological potential. The impetus for this work was the unexpected logging of the site and the immediate danger posed by exposing the surface.

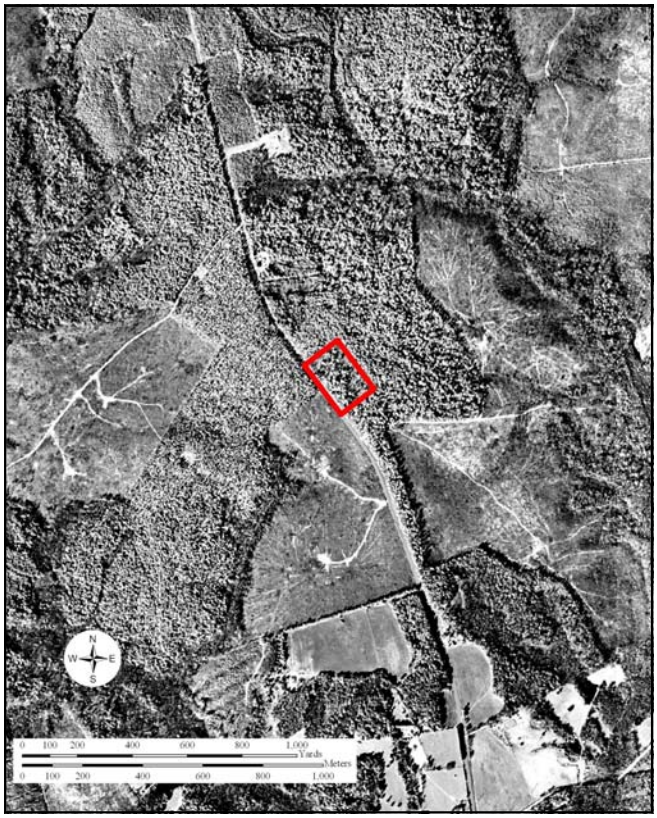


Figure 1.7 Aerial photography of Camden battlefield in 1999 after clear-cut, DAR park in red (courtesy Thomas Cooper Library, USC.

The origin of the Camden Battlefield Collector Survey was in December 2000, when Legg (2000) was asked by the Palmetto Conservation Foundation (PCF) to assess the Camden battlefield's archaeological integrity and potential based on the 1998 effort, and to suggest ways in which archaeology might assist battlefield interpretation. The battlefield was obviously undeveloped and relatively well preserved as a landscape, but as an archaeological resource it had suffered serious damage through decades of relic collecting. Among other recommendations, Legg suggested that a concerted effort be made to identify and interview individuals who collected artifacts in a pragmatic effort to salvage whatever information they could provide that might be helpful in interpretation (Legg 2000). This technique has proven very useful on intensely collected military sites that might otherwise yield far less information to archaeologists (e.g. Legg and Smith 1989; Legg and Espenshade 1991; Espenshade, et al 2001). This recommendation resulted in two grants and a report of findings (Legg, Smith and Wilson 2005).

Figure 1.8 West side of Highway 58 at Camden battlefield after clear cut.

The current project began with the awarding of a contract from the Palmetto Conservation Foundation, through the National Park Service's Save America's Treasures Initiative (SAT). The original award was in August 2005. Two extensions were granted as a result of various bureaucratic requirements, other contracts and grant schedules, seasonal field conditions, and most importantly, progress made by PCF toward reconstructing the natural battlefield landscape. Specifically, PCF planned a series of controlled burns in 2007 to assist in the planting and growth of longleaf pine. It

Figure 1.9 Young forest east side of Highway 58 at Camden battlefield.

was obvious that a controlled burn would create excellent conditions for metal detecting and thus the archaeological expression of the battlefield would be in increased danger from unauthorized collecting. On the other hand, this was an unprecedented opportunity for archaeologists to obtain wide-scale distributional data through piece plotted metal detecting. For both these reasons, the proposed fieldwork plan, including sampling areas, needed to be completely revised. Essentially, we needed to cover as large an exposed area as possible. For safety purposes, controlled burns must be conducted under strict weather conditions. They needed to be scheduled during the winter, and within narrow wind and humidity parameters. Incidentally, South Carolina was experiencing a severe drought during the period, which increased the risk of the controlled burning getting out of control. Eventually, conditions for the controlled burn at Camden occurred in December 2006 and January 2007.

Given the project's nature, there was no single concentrated, continuous episode when project personnel were able to focus on the project's goals. Identifying, locating, visiting, and arranging battlefield visits between collectors and project personnel extended over a three year period (2005-2008) leading up to drafting this report. Some site visits and interviews were conducted on weekends when collectors were available. Likewise, the controlled metal detector survey was conducted piece-meal over a period of two months in Spring of 2006, two weeks in June 2006, January and February 2007 and March 2007. Collection analysis and artifact photography occurred as collections were made available to the project team. The report was assembled over two years with a final month-long effort in May 2008, with final revisions in November 2008.

It is impossible to accurately assess the number of person-hours expended on this project. A total of 1,640 person hours were budgeted for this grant. However, it is a reasonable estimate that the actual total number of person hours was 150% of that budgeted or some 2,460 person hours.

CHAPTER 2: HISTORY OF THE BATTLE OF CAMDEN, AUGUST 16th, 1780

Introduction

The following battle history is a slightly revised version of the history first published in Legg, Smith and Wilson (2005). As stated in the original, this history is in no way intended to be the last word concerning exactly what happened on that hot August 16th, 1780. Instead, the history provides a basic understanding of the battle as it unfolded from the historic record, with a special emphasis on battle maneuvers that might be reflected in the archaeological record. Together, the ultimate goal of both the history and the archaeology is an attempt to detail, to the greatest extent possible, the sequence of maneuvers by American and British military units across the battlefield landscape. With that in mind, this history relies primarily on eyewitness accounts, especially those of: 1) American commander General Horatio Gates, 2) Colonel Otho Williams, Gates' Adjutant, 3) Major Thomas Pinckney, aide-de-camp to Gates, 4) Colonel Guilford Dudley, a private soldier at the time serving as an aide to Colonel Porterfield, 5) British commander Lord Earl Cornwallis; and, 6) Lieutenant Colonel Banastre Tarleton, British cavalry commander.[1] While there are many secondary accounts,[2] after study, most seem to rely heavily on the few eyewitnesses referenced herein. Therefore, unless they offer some additional insight or contrary interpretation of the sequence of events, or locate units on the battlefield, they will rarely be referenced (except for their excellent summaries of the overall strategic situation). As Battle of Camden Project research continues, eyewitness accounts, especially in pension applications are being compiled. For that reason alone, this effort, cannot be the final word on the Battle of Camden.

Prelude

Only a few days after the fall of Charleston in May 1780, British infantry and cavalry detachments fanned out across South Carolina, capturing towns including Ninety Six, Camden, and Georgetown. Controlling these towns created a defensive arc protecting Charleston, and outposts from which the backcountry could be subdued. Both sides saw Camden, South Carolina, as the keystone in this ring. The only American forces in South Carolina were a few partisans, and for a short time a party of Virginians under Colonel Abraham Buford who were to be slaughtered by British Lieutenant Colonel Banastre Tarleton at the Waxhaws.

Prior to Charleston's surrender, General George Washington recommended that a force of Continental soldiers be sent south to rescue the besieged or, if Charleston had fallen, to act to "arrest the progress" of the British and "save the Carolinas."[3] He further hoped that the Continentals' presence would rally the cause and increase Carolina militia and Continental enlistments. Major General Baron de Kalb, commander of the Maryland and Delaware Division, moved south and encamped near Buffalo Ford, North Carolina, on July 19th after a difficult march through Virginia and North Carolina. There, de Kalb awaited further orders, desperately needed supplies, and reinforcements. Despite de Kalb's pleads to Whig authorities in North Carolina, he got nothing but promises. Especially galling for de Kalb, and later Gates, was the lack of cooperation from Major General Richard Caswell who commanded North Carolina mili-

tia, and who was supposed to join de Kalb with supplies. Meanwhile, Congress sent General Horatio Gates, the hero of Saratoga, to take command of the Southern Army. Gates arrived at the American camp on the evening of the July 24th, with the good news that a force of Virginia militia was on its way to join the Continentals.[4]

At Buffalo Ford, Gates surveyed his army. His best unit was de Kalb's Maryland (and Delaware) Division, which consisted of two brigades. General William Smallwood commanded the 1st Brigade; the 2nd was under General Mordecai Gist.[5] The Delaware regiment, commanded by Colonel Joseph Vaughan, was an integral part of the 2nd Brigade. In addition, Gates expected the legionary corps of Colonel Charles Armand, Marquis de la Rouerie, consisting of about 60 cavalry and an equal number of infantry. There were also three companies of Continental Artillery under Colonel Edward Carrington. Major Thomas Pinckney, already in camp as an aide to de Kalb, became Gates' aide.[6]

Expecting to be joined by Virginia militia under Brigadier General Edward Stevens and North Carolina militia under Caswell, Gates decided to advance on Camden, because General Thomas Sumter reported it vulnerable due to a reduced garrison. Gates made some hasty decisions that, in hindsight, appear to have contributed to the disaster on August 16th, 1781. To the amazement of his officers, Gates immediately ordered the weary and starved troops to be ready to march. Three days later, the troops were on the move, leaving behind two artillery pieces for lack of horses. The army would travel toward Camden with ten field pieces. To the further consternation of some officers, Gates' intended line of march was a direct route to Camden, through a part of the Carolinas widely known to lack forage--a veritable desert--occupied by an unfriendly population. Colonel Otho Williams, Adjutant General, first to de Kalb, and then to Gates, attempted to dissuade Gates from this route in favor of a more indirect approach that first turned west, through Salisbury, North Carolina, and then south toward Camden. Williams' route would take the army across a landscape where the local population was friendly and forage more available. Gates was not persuaded.[7]

Thus the army marched through a desert-like countryside until they arrived at Mask's Ferry on the Pee Dee. Here the army found plentiful green corn and green peaches.[8] Starving, the men ate the corn and peaches with predictable results. As the men suffered gastrointestinal reactions, a tremendous thunderstorm hit the army and delayed the crossing. In the meantime, Gates made a more rudimentary tactical error. Colonel Anthony White and Lieutenant William Washington, with what was left of the 1st and 3rd Light Dragoons, asked for aid in recruiting their corps and offered to join Gates' army. Gates turned them away.[9] Although White and Washington's commands were tiny and probably could not have prevented Tarleton's cavalry from wreaking havoc at Camden, they would have been valuable for scouting and screening. Gates apparently placed little value on cavalry, and would later attempt to convert even Armand's few cavalry horses to artillery draft horses.

About this time, Gates was joined by Francis Marion with around 20 mounted militia. They had joined the southern command at Hillsborough, and de Kalb had dispatched them to Cole's Bridge on the Pee Dee to gather intelligence and supplies. Marion's group would act as a bodyguard for Gates on the road to Camden.[10]

After some delay, Gates got his army across the Pee Dee on August 3rd to find Lieutenant Colonel Charles Porterfield and about 100 Virginia State Troops awaiting him. Porterfield was welcomed and his command began serving as scouts in front of the army. As the army marched southwestward, Gates finally received two communications from Caswell. Caswell first wrote Gates saying he was planning an attack on a British outpost, and then on August 6, came a plea for help as Caswell himself was about to be attacked. Gates had had enough, and rode on ahead of the army to find the North Carolina militia and get them under control. Once he found Caswell, Gates was "graciously" received and the two forces were joined on August 7th.[11] Together, with de Kalb on the right and Caswell on the left, the unified command marched to Lynches Creek. There they found the British had abandoned camp and had moved to Little Lynches Creek. Proceeding on to Little Lynches Creek, on August 10th, the Americans found British Lord Rawdon and his command fortified on the opposite bank.

While Gates' starving army straggled toward Camden, British commander Lord Francis Rawdon, well aware of Gates' progress, was attending to more pressing matters. General Thomas Sumter had been harassing the British outposts at Rocky Mount and Hanging Rock. Rawdon first marched out of Camden to reinforce these posts, but when he learned of Gates' approach, he decided to concentrate his forces to meet the American army--first marching to Lynches Creek, and then, countermarching to Little Lynches Creek. Thus, when Gates arrived on the west branch of Little Lynches Creek, about 14 miles from Camden, there was Rawdon, with the 23rd, 33rd and 71st Infantry Regiments, his own Volunteers of Ireland, a militia corps under Lieutenant Colonel Hamilton, and 40 British Legion dragoons under Tarleton. Farther west, British Legion infantry was posted at Rugeley's Mills.[12] Meanwhile, as Gates assessed his chances of successfully attacking Rawdon at Little Lynches Creek, Lord Earl Cornwallis left Charleston, rapidly heading northeast to take command of the British forces.[13]

Gates eventually thought better of attacking a fixed position across a causeway, despite de Kalb's urging. Instead, Gates marched north and then west to Rugeley's Mills, effectively by-passing Rawdon and threatening British-occupied Camden. The British Legion infantry left before Gates arrived. Rugeley's plantation, known as Clermont, was the home of loyalist Colonel Henry Rugeley, and included mills, store, home, and barn. At the fork of two creeks thirteen miles from Camden, Rugeley's was along the main road from Camden to Charlotte. As a result of Gates' circling maneuver, Rawdon was flanked and moved back toward Camden, posting his command at Logtown, a small hamlet one mile north of Camden. This move placed Rawdon between Gates and Camden and better consolidated British forces. Throughout the 13th of August, units of Gates' army stumbled into Rugeley's Mills (Figure 2.1). Late that night, Lord Cornwallis arrived at Logtown, unbeknownst to Gates. The following day would find both Gates and Cornwallis making critical decisions leading to the Battle of Camden.

Phase I: Night March and Clash of Armies

August 14th saw the long awaited arrival of General Edward Stevens and the Virginia militia who followed behind Gates, never being able to catch up. Stevens brought some 700 additional, albeit exhausted, reinforcements. At the same time, Gates received a plea from General Sumter, operating to the west, for additional troops. Sumter saw an opportunity to capture a British supply train proceeding toward Camden. Rather than ordering Sumter to join the main

force for an attack against Cornwallis, on the morning of the 15th, Gates sent Sumter 300 North Carolina militia, 100 of the 5th Maryland Regiment's Continentals, and two field pieces.[14] Of less immediate consequence, but fortunately for future American partisan operations, Gates detached Francis Marion and his men to the Williamsburg district to take command of the Williamsburg militia.

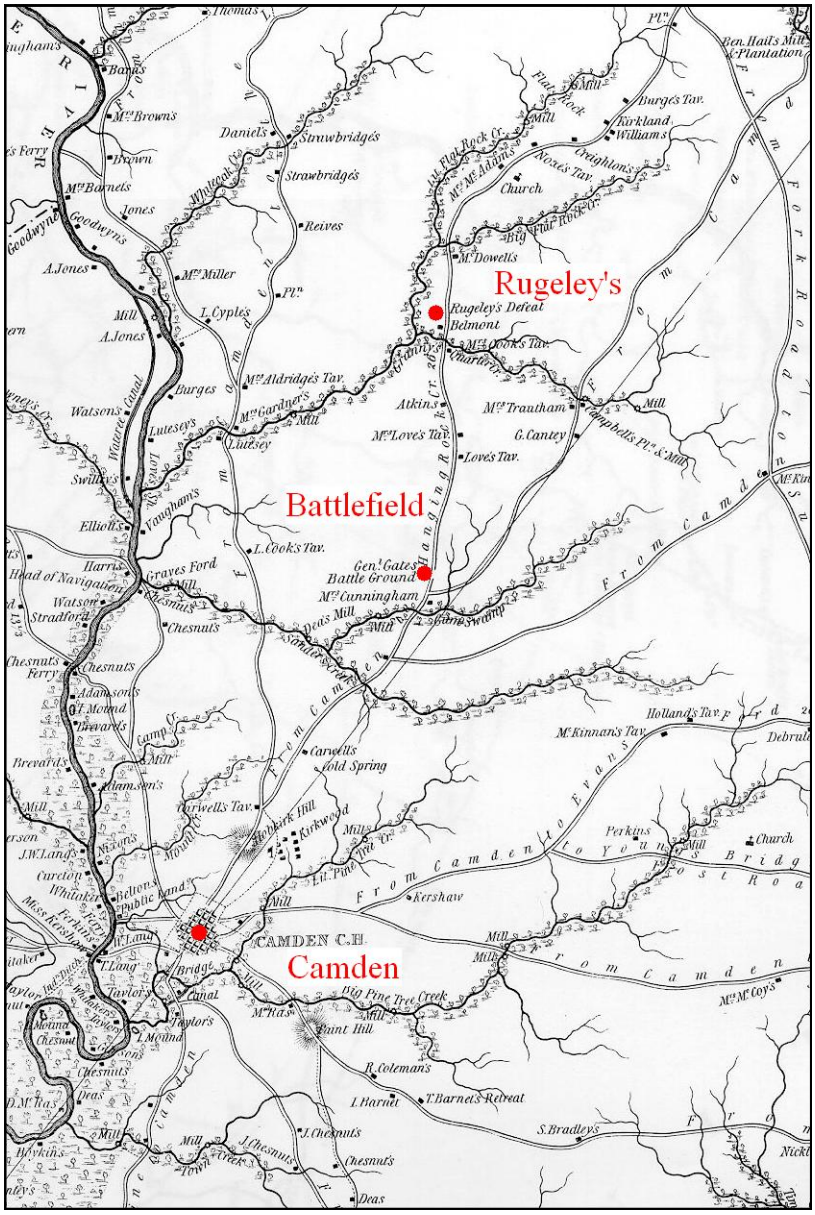


Figure 2.1 Detail of Kershaw District map showing locations of Camden, Rugeley's, and the Camden battlefield (Mills' Atlas 1825).

With amazing irony, Gates and Cornwallis both now decided that their individual tactical situations were desperate and they needed to move immediately. For Gates' part, he knew Rugeley's was indefensible. He needed to be closer to Camden.[15] Thus, he sent Colonel John Senf and Lieutenant Colonel Porterfield down the road toward Camden to find a better, more defensible site, from which to "confine his [the enemy] operations, to cut off his supplies…and…harass him."[16] Senf found an "Advantageous Situation, with a Deep Creek in Front, Seven Miles from Camden."[17] This site, probably Sanders Creek, about a mile south of Gum Swamp, would become the destination of the American army's march toward Camden that evening.

Gates and his advisors were operating under a false assumption—that the British would remain on the defensive at Logtown. Cornwallis, however, also saw his tactical, indeed strategic position, as untenable. From his perspective he had little choice but to attack. The countryside was in revolt, Sumter was on his flank, and sickness had spread widely in the British army. A retreat from Camden would have left the sick behind, along with a large quantity of supplies, and strategically would leave the upcountry to the rebels. Cornwallis' excellent intelligence informed him that Gates was "badly posted" at Rugeley's.[18] So with confidence that Charleston

was well protected, and that he had "little to lose by a defeat, & much to gain by a Victory,"[19] Cornwallis prepared to march with the full intention of engaging and defeating Gates at Rugeley's.

At the American camp, Gates called his officers to Rugeley's barn the afternoon of the 15th and issued orders to march south to the new position beginning at ten that evening. According to Gates, he "communicated" his plans in this meeting and no one raised any objections.[20] Otho Williams confirms that Gates heard no objections in the meeting, but asserts that there were misgivings among the officer corps about a composite army of regulars and militia that had never maneuvered together in daylight, marching at night toward a well-trained professional enemy.[21] Otho Williams, in his narrative, has little good to say of Gates and takes every opportunity to point out poor decisions Gates made that led to the ultimate Camden disaster. Williams firmly believed that a few days rest at Rugeley's would have seen the an outpouring of local militia and supplies.[22] He was right, as Cornwallis noted the countryside was in arms against him.[23] It is clear that the American army on the evening of the 15th was exhausted, sickly, and hungry. However, unknown to Williams, Cornwallis was on the move, and would have arrived at Granny's Quarters Creek the next morning, perhaps surprising and routing the American army at Rugeley's. With the advantage of 200 years hindsight, it now appears that there were two commanders making the best decisions possible in seemingly desperate situations.

Gates' army prepared for the night march. He ordered the sick, heavy baggage, extra artillery stores, quartermaster supplies and those camp followers who had not already left, to move northeast to the Waxhaws. In keeping with his intent of moving to a better position, other supplies such as ammunition would accompany the army. Then he fed the men. The combined effects of exhaustion and tight stomachs make it startling today to read that Gates issued the men a full meal of meat, bread, and a gill of molasses. That was certainly a tactical error. As should have been expected, the repast "operated so cathartically, as to disorder very many of the men, who were breaking ranks all night, and were certainly much debilitated before the action commenced in the morning."[24]

Gates' army moved out at ten pm in the following order: Armand's cavalry led the advance along the sandy road. Two hundred yards on his right, marching through the woods in single file was Lieutenant Colonel Porterfield's Virginians acting as light infantry. On the left at an equal distance was North Carolina militia light infantry under Major Armstrong. Porterfield and Armstrong were reinforced with hand picked men from the Virginia and North Carolina militia, respectively. On the road behind the cavalry were Armand's light infantry followed by an advanced guard, then the 1st Maryland Brigade, followed by the 2nd. Next in line were three brigades of North Carolina militia followed by the Virginia militia, and a rear guard of volunteer cavalry covering the baggage and ammunition wagons. Each continental brigade had two field pieces at its front.[25] The rest of the artillery was with the Virginia militia.

In the van, Gates ordered his few cavalry to be prepared to stand and absorb any attack on their front. Porterfield and Armstrong would then sweep in from the right and left to flank the attackers until more support could be brought up. Gates thought the cavalry's position in the van was a positive move.[26] But Armand was upset with the order. Armand complained

that cavalry had never been placed in advance of troops marching at night before, and that Gates' order was insulting. It is possible Armand was right about the insult. Gates did not seem to appreciate the cavalry's value, having already dismissed White and Washington, and he had wanted Armand's horses to pull the artillery. Still, if Gates is guilty of misplacing cavalry out front, the British did the same.[27]

Figure 2.2 This pine/wiregrass landscape at Fort Bragg, North Carolina, is reminiscent of the 1780 Camden battlefield, except that the trees would have had greater diameters (courtesy Michael Stoner).

The landscape between Rugeley's and Camden was gently rolling and wooded. One eyewitness described it as "thick," however it is more likely that today it would be described as mature, since these woods in no way resembled modern forests of thin pines and heavy undergrowth. The virgin pine forests of colonial South Carolina consisted of giant mature trees with thick trunks and a canopy beginning perhaps as much as thirty to forty feet above the ground. In this environment, little underbrush could grow, so there were clear, open spaces between the trees that allowed good visibility and did not hinder maneuver. Guilford Dudley, attached to Porterfield, described the battlefield landscape as an "open piney wood plains, destitute of brush wood" which did not hinder visibility, even at night.[28] No other eyewitnesses mention any problem in maneuvering, nor did the woods hinder British cavalry during the battle (Figure 2.2).[29]

With a full moon shining through the high canopy, Armand's cavalry and Porterfield's light infantry kept visual contact throughout the march.[30] The men were under orders not to make a sound. But the thump of hooves on the sandy road, creak of leather, squeak of artillery wheels, and occasional cough probably carried farther than Gates would have wanted. Still, at 2:30 A.M., four and one half hours into the march and only two miles from his destination, Gates must have been gaining confidence that his maneuver would work. He would reach Sanders Creek, send Armand across to scout, and deploy the army along the ridge above the creek. He was probably no more than an hour or two from putting the British into a strategic squeeze that might have resulted in at least a temporary abandonment of the upcountry.

Colonel Armand's vedette was 300 yards in front of the army, pushing down a long gentle hill that would bottom out at Gum Creek. Suddenly, out ahead there was a shout, and the vedette fired his pistol, the crack ringing through the night forest. Armand hurried over to Porterfield on the right flank, and still maintaining silence, whispered "there is the enemy, Sir—must I charge him?"[31]

Unknown to Gates, Cornwallis marched at the same hour, up the same road hoping to reach Rugeley's Mills on the morning of the 16th for the surprise sunrise attack. Lord Cornwallis placed a British Legion dragoon troop in the British van. Behind them were mounted

infantry and four companies of light infantry. The 23rd and 33rd Regiments of Foot followed; behind them was Lord Rawdon's brigade consisting of the Volunteers of Ireland, British Legion infantry, and Hamilton's North Carolina Loyalists. Two battalions of the 71st Regiment and a few wagons and dragoons brought up the rear. Cornwallis also brought six field pieces, four with the forward elements and two with the reserve.[32] The British march had also been silent, but when the two armies clashed, the British were probably in better order than the Americans. While crossing Sanders Creek, the British experienced some confusion. But they quickly re-formed and were in good compact order when they met Colonel Armand's cavalry.

The British cavalry charged immediately when their challenge went unanswered.[33] Armand's command took the British charge and the two forces crashed together, pistols cracking and sabers clanging. Porterfield's light infantry reacted to the first shots exactly as ordered and ran up the right flank, returning fire.[34] This surprised the British dragoons and forced them back, but simultaneously, the British light infantry advanced, deployed, and laid down a solid fire, throwing back the American center.[35] Armand's cavalry recoiled, turned and retreated down the road, and most of the militia on both sides of the road followed, all crashing down on the American column, into the advanced guard and then the 1st Maryland Brigade. Gates had ridden to the front at the first shots and was "urged to retire" by Armand,[36] but he remained in front while other officers worked to get the troops under control and formed into a hasty battle line. Out in front of the confused Americans, not all the militia left the field; some remained on either flank, held by their commanders and putting up a good fight. Porterfield and about 50 men on the right flank fired as many as five rounds before being forced back when the British moved up the road. At this point, Porterfield was wounded and a retreat was ordered.[37]

Covered by the British light infantry, the 23rd and 33rd deployed across the road.[38] Random firing continued for about 15 minutes, and then both sides ceased firing.[39] It appears that both sides withdrew just beyond sight of each other, neither wishing to continue the battle in the dark. But the night action was not over. For the next two hours, British dragoons probed the forests, scouting the lay of the land and probing the American front.[40] Likewise, the few American horsemen were busy, but not so venturesome. Scattered fire by pickets continued throughout the night.

In the sharp night action, both sides took prisoners, and now as the armies prepared for battle, their commanders discovered who was in their front. Gates unhappily learned, for the first time, that Cornwallis' and his entire force was just down the gentle slope. Cornwallis, probably much happier, learned he had Gates in the open and it would be nearly impossible for Gates to avoid battle. The landscape gave neither side a particular advantage. In open wood, both sides could deploy in linear battle order with their flanks protected. On either side were low swamps and marshes, where cavalry and infantry would have difficulty out-flanking their opponents. Both sides anchored their flanks on these natural features. Gates held higher ground. Cornwallis had Gum Swamp to his rear. This would seemingly give Gates some slight tactical advantage, but only if he forced Cornwallis to retreat. Cornwallis initially had some concern about a road leading off to the west that might be used in an American flanking maneuver, but after posting a guard there, he gave it no further consideration.[41] While his men formed for battle, Gates called a council of war behind the line. He asked his officers, "Gentlemen, what is best to be done?" After a pause, General Stevens spoke. "Gentlemen," he said, "is it

not too late *now* to do any thing but fight?"[42] It was a very good question. With wagons blocking the road behind them, his troops formed into a ragged battle line that needed further attention, no cavalry to screen a retreat, and with daylight approaching rapidly, it would have been suicide for Gates to do anything but prepare to fight.[43] No one commented further and Gates asked all to return to their units and await the daylight.

Perhaps here was where Gates made his greatest mistake. When the troops were formed for battle, the militia displayed to the left and the Continentals to the right. The newly arrived Virginia militia was on the far left. Thus the entire American left consisted of exhausted, sick, militia.[44] Gates placed the 1st Maryland Brigade behind the 2nd Maryland Brigade and extending across the road.[45] When morning came, the American lines stood in detail, as follows. On the extreme right were the four regiments of the 2nd Maryland Brigade (with the Delawares near the road) totaling about 500 to 550 men.[46] Under the command of General Gist, their right flank was anchored on a creek called Macdonald's Branch. In the center were the North Carolina militia under Caswell, approximately 1200 men in three brigades commanded by Gregory, Butler and Rutherford. On the left, the Virginia militia consisted of about 700 men under Stevens. Stevens' left flank was protected by a low swampy area, with Porterfield's command and some North Carolina light infantry under Major Armstrong covering a small gap between the end of the line and the swamp (less than 400 men). Further support came from Armand's cavalry (around 100 men) behind the left flank. As noted, two hundred yards to the center rear of the front line, straddling the road, was the 1st Maryland Brigade under General Smallwood (approximately 600). Artillery along the front line was arranged with two guns between the Marylanders and the Delawares, three straddling the road, and two in the rear line with Smallwood's command (Figures 2.3 and 2.4).[47]

Only a few hundred yards away,[48] Cornwallis did not fully deploy his troops. Instead he ordered his men to lay down where they were and await daylight. With an army of regulars and well-drilled loyalists, he could leave most units in column along the road, knowing they would deploy quickly when the time came.[49]

Phase II: Opening Gambits

Just before daylight, Gates rode down his front line and then the second line, saying a few words to the men, encouraging them for the coming battle.[50] From Camden, came the boom of the morning gun.[51] He had just finished speaking to Smallwood's Brigade and had posted himself behind them when he heard his front line artillery fire. Captain Singleton, in command of the artillery along the road, had spotted the British emerging in column from the gloomy morning mist about two hundred yards away. He informed Colonel Williams.[52] Williams immediately ordered him to fire and then spurred his horse back to General Gates. Finding Gates, he reported the British advance and added that the British were "displaying their column by the right."[53] According to Williams, Gates did nothing, so Williams offered a suggestion that, if the British were displaying to the right, then an advance by the Virginia militia, already in line, might have a "fortunate effect." Gates responded, "that's right—let it be done,"

and Williams spurred his horse toward Stevens' militia to relay the order. Gates then turned to Pinckney and sent him to order de Kalb to advance in concert with Stevens.[55] Gates also ordered the second line, Smallwood's 1st Maryland Brigade, to move left and advance behind the Virginia militia.[56] Williams soon reached Stevens and relayed Gates' order. Williams then made a request of Stevens that indicates excellent tactical understanding. He asked for 40 or 50 volunteers to run forward, take to the trees, and start a "brisk fire," enticing the British to return fire, and thereby blunting the effect of their first volley.[57] The request was granted and the men advanced as close as 40 to 50 yards from the enemy but it did little good against the oncoming disciplined British who were now in line and advancing with bayonets.[58] Stevens, seeing the British advance, "put his men in mind of their bayonets,"[59] which unfortunately, had only been issued to them the day before.

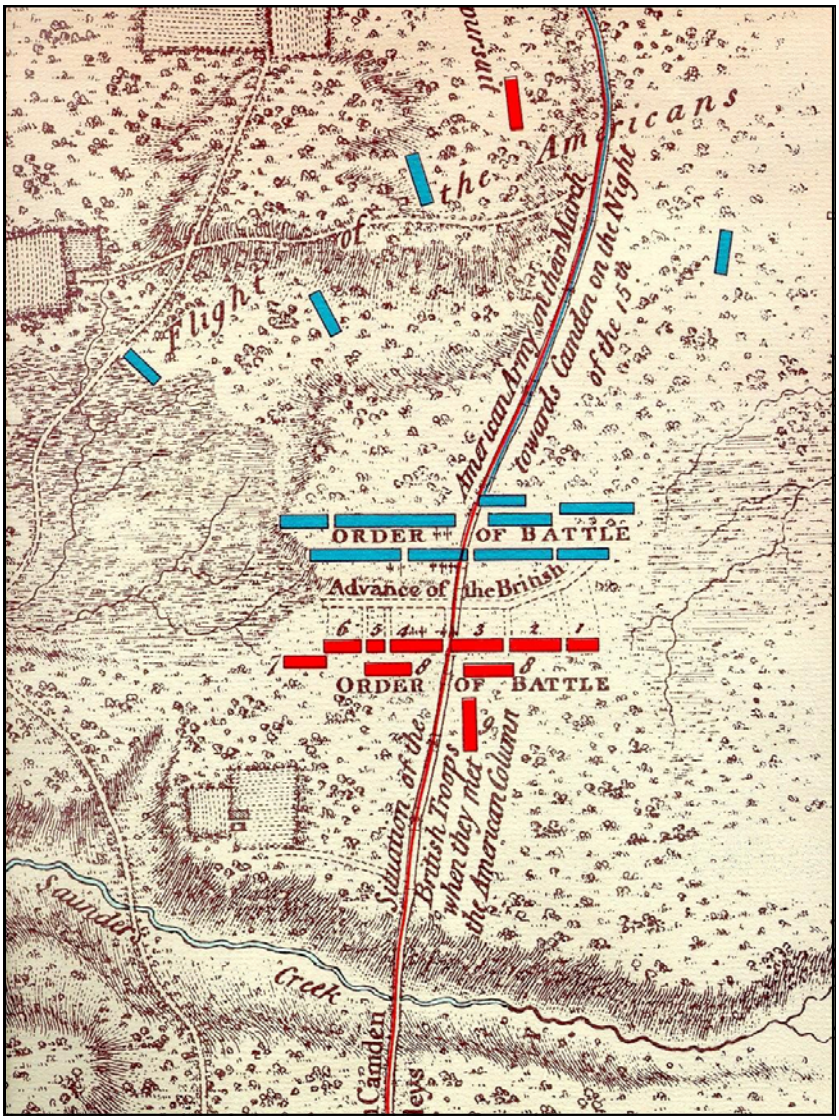
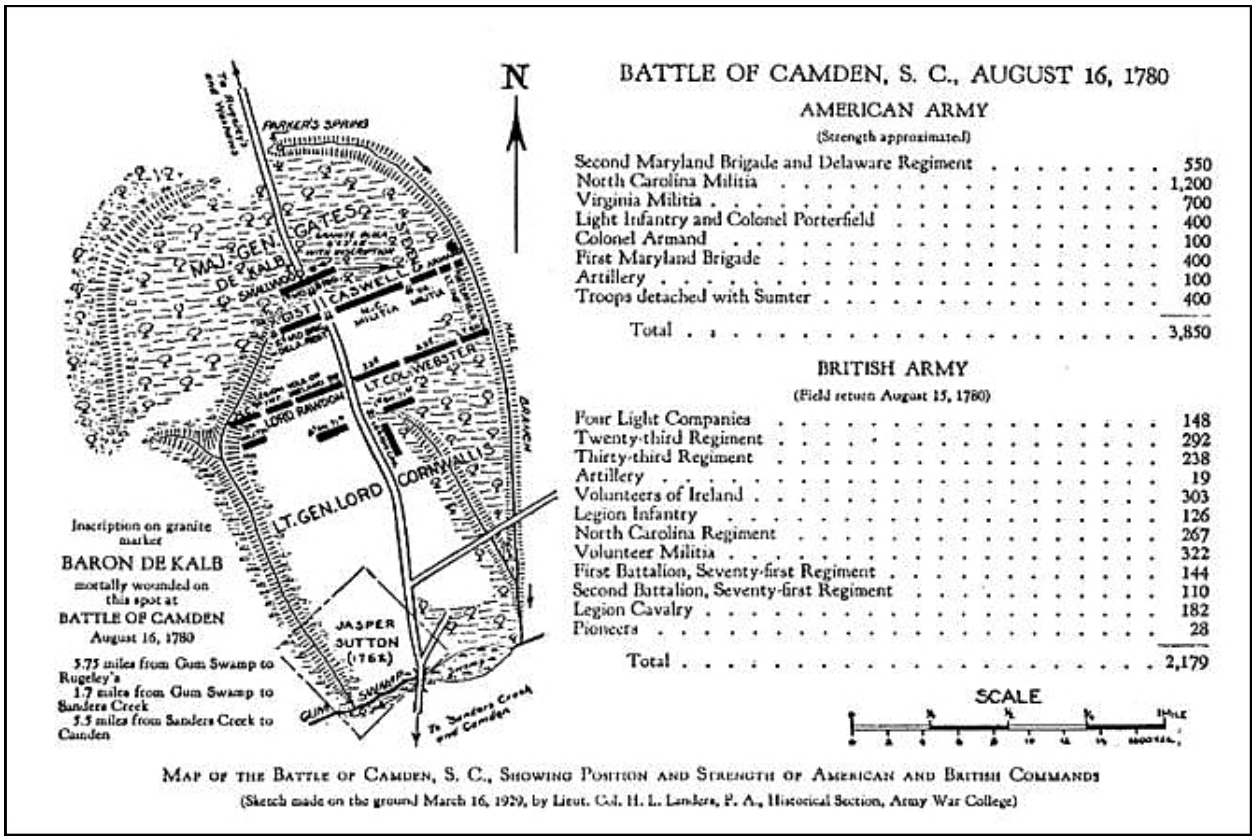


Figure 2.3 Detail of William Faden map of Camden battlefield, ca. 1787 (modified from American Map Company Inc., No. 2113). The map appears in Tarleton (1787) and Stedman (1794). Note Saunders Creek should be Gum Swamp Creek.

While Gates was parading in front of his troops, Lord Cornwallis was busy completing his deployment. East of the road, he deployed a brigade under the command of Lt. Colonel Webster in the following order. On his extreme right, he placed his four light infantry companies (148 men) anchored by the swamps on their right, then from right to left, the 23rd Regiment (292 men) and 33rd Regiment (238 men). Behind them, the 1st Battalion, 71st (144 men) stood ready as a reserve. Left of the road, Cornwallis deployed his other brigade under Lord Rawdon. From right to left, this brigade consisted of the Volunteers of Ireland (303 men), the British Legion infantry (126 men), and Colonel Hamilton's North Carolina Loyalists anchored by another swamp on the left (267 men). More volunteer militia (322 men) formed behind Hamilton.[60] Cornwallis' artillery, consisting of two, six pounders and two, three pounders, as placed on the right of the Volunteers of Ireland in the road. The 2nd Battalion, 71st (110 men) was placed be-



MAP OF THE BATTLE OF CAMDEN, S. C., SHOWING POSITION AND STRENGTH OF AMERICAN AND BRITISH COMMANDS
(Sketch made on the ground March 16, 1929, by Lieut. Col. H. L. Landers, F. A., Historical Section, Army War College)

Figure 2.4 Map of Camden battlefield and deployment of American and British units at beginning of battle from Landers (1929) and based on Kirkland and Kennedy (1905).

hind the Volunteers, each 71st battalion had a six pounder artillery piece. The British Legion dragoons under Tarleton (182 men) formed a reserve along the road.[61] With a few pioneers and artillerists (28 and 19 men, respectively), Cornwallis' force consisted of 2,179 officers and men.[62] This disposition placed Cornwallis' best, the light infantry, 23rd and 33rd Regiments, against Gates' weakest units, the Virginia and North Carolina militia.

Cornwallis had just completed his deployment and was ready to advance when, "I perceived that the Enemy, . . . were formed in two lines opposite & near to us, and observing a movement on their left, which I supposed to be with an intention to make some alteration in their order, I directed Lt. Colonel Webster to begin the attack."[63] Cornwallis may have been informed of the American movement by Captain Charles Campbell who led a Highland light infantry company on the extreme British right. Campbell had stationed himself on an old stump and when he noticed the Americans move is reported to have said "I'll see you damned first," and ordered his men forward.[64]

Like most battles, the sequence of combat events quickly becomes confused. The following is offered as a possible reconstruction of the battle's first few minutes. At dawn, Cornwallis ordered his forces to deploy. As daylight broke, Williams and Singleton saw the British maneuver and Singleton opened fire with his artillery. At least part of the British right line was still in column at that point.[65] Williams raced back to Gates while the British rushed to complete their eastward deployment; their light infantry skirmishing in front covered the deploy-

ment of the 23rd and 33rd. Gates and Williams met and after Williams told Gates that the British were in column, Gates ordered Stevens to advance. Williams then rode to Stevens to relay the order. As artillery and light infantry fire spread, Williams and Steven conferred. Williams at that point realized that it was too late to gain any advantage by attacking the deploying British. Instead, he quickly rounded up a few volunteers and moved out in front of Stevens' line to attempt to dull the impending British attack. Cornwallis noticed Williams' volunteers moving forward, which he took as an attempt to change formation, and ordered the British advance to begin, first Webster then Rawdon.[66] By then, de Kalb had his orders and also started forward. In that instant, the British were advancing on their right against the militia, and the American right and British left were advancing toward each other. Stevens, on the American left, soon realized that his Virginia militia would not gain any advantage by advancing and prepared the militia line to hold against the on-coming British, reminding the men that they too had bayonets. But it would do no good.[67]

Phase III: Flight of the Militia and Advance of the Continentals

All eyewitnesses agree that the militia broke immediately. Many, probably most, fled without firing a shot.[68] Seeing the British bayonets and hearing their cheers, the tired, untried militiamen, "at least two thirds" of the army, turned and ran.[69] The Virginians fled first, "almost instantly followed by the North Carolinians."[70] One North Carolinian, Garret Watts, unashamedly claims to have been the first to fire, and flee:

> I can state on oath that I believe my gun was the first gun fired, notwithstanding the orders, for we were close to the enemy, who appeared to maneuver in contempt of us, and I fired without thinking except that I might prevent the man opposite from killing me. The discharge and loud roar soon became general from one end of the line to the other. Amongst other things, I confess I was amongst the first that fled. The cause of that I cannot tell, except that everyone I saw was about to do the same. It was instantaneous.[71]

Watts is probably referring to being the first of the North Carolinians to fire and run, not the first in the whole of Gates' force. Obviously, if Williams did get a few volunteers out in front of the Virginia line, they fired first, and quite possibly fled first. In this scenario, the skirmishers may have precipitated the collapse of the Virginia line by running back to, and through, the main line instead of falling back slowly.

In any case, it would appear that the flight of the militia was like a line of dominos, with the far left collapsing first, following through the Virginians and then along the North Carolina line. Most were gone in an instant, but not all. Just to the left of the 2nd Maryland Brigade, Dixon's North Carolina regiment (consisting of both militia and Continentals) held firm, firing as many as three volleys, before they left the battle.[72] Or perhaps they did not run until the very end. Pinckney, returning after delivering Gates' order to de Kalb, saw these brave few standing firm but "in small squads in the rear of the left of the artillerists."[73] Guildford Dudley testifies that Dixon's men not only stood firm, but actually drove the enemy opposite them (the 33rd) "out of line."[74] This is supported by other sources, including reports that the American center advanced with the right.[75] Furthermore, Sergeant Lamb of the British 23rd Regiment recorded

that the men under Gregory "kept the field while they had cartridge to fire. Gregory himself was twice wounded by a bayonet in bringing off his men."[76] Thus, it is clear that the extreme right of the North Carolina line held for quite sometime, perhaps as long as the American right.

In the short time it took Pinckney to ride to de Kalb, witness the commencement of their advance, and return, the Virginians and most of the North Carolinians were fleeing northward toward Rugeley's. The 1st Maryland Brigade, ordered forward to support the militia, must not have gotten far to the left before the militia collapsed back into them. The Marylanders opened ranks to allow the militia through, reformed and checked the British advance. Colonel Guilford Dudley saw them take post on Dixon's left, which means they advanced near or along the first line or that the front line was forced back into them.[77] As the Marylanders engaged the British 23rd Regiment and light infantry, Pinckney rejoined them only to be wounded. He was carried to an ammunition wagon that was "then endeavoring to escape, into which I was thrown."[78]

Before being wounded, Pinckney's goal was to rejoin Gates, but Gates was not with the 1st Maryland Brigade. Gates, Caswell and other officers were quite busy attempting to rally the militia. Twice, according to Gates, he and Caswell attempted to stop the militia, but to no avail. Pressed by the British, the mass of humanity "ran like a Torrent" up the road toward Rugeley's.[79] Gates was swept along with the flood. Guilford Dudley, making his way along the American line, saw the militia run and asked an officer in Caswell's command where Gates was. The officer replied that "He's gone," and showing contempt for his general added, "He has fled and is probably past Rugeley's by now."[80]

Dudley, with the help of several North Carolina militia officers, attempted to stop the flood. Amazingly, they managed to get about 150 men to face about in line, only to discover that none had weapons.[81] They quickly melted away. In their panic, the militia not only fled up to Rugeley's, but others "kept straight forward through the plain and over the sand hills, to gain the Cheraw road on their right."[82]

Phase IV: Destruction of the Continentals

As the militia collapsed on the left, and Smallwood's Brigade was holding back the British 23rd and light infantry, Gist's brigade on the American right was in a furious battle with the British loyalists and unaware of the danger from the British right flank.[83] Advancing against the British Legion, North Carolina Loyalists and Volunteers of Ireland, the American right pushed the British back, capturing some British and an artillery piece. One eyewitness states that even Lord Rawdon was a prisoner for a moment; another source states that the American right gave three cheers for victory.[84]

Essentially, the Americans on the right were winning their half of the field. But what exactly happened along that portion of the line probably will never be known. Few Continentals have told their side of the story, and as the battle raged, smoke hung over the battlefield, obscuring observation by either side.[85] According to Guilford Dudley, when Smallwood's reserve brigade took post to the left of Dixon's regiment, "the contest was renewed with redoubled vigor, the American right led on by the brave De Kalb."[86] Even the self-confident Tarleton

admits that de Kalb, "made a vigorous charge with a regiment of continental infantry through the left division of the British."[87] Furthermore, he noted that the 33rd Regiment took "heavy and well-directed fire" along with the British left, indicating that Dixon men were doing their part.[88] The battle was fierce, in some instances hand-to-hand, and for a moment, the British left was in trouble.

For perhaps as long as thirty minutes, the contest remained in the balance on the western half of the battlefield.[89] The 2nd Maryland Brigade increased its pressure against the British left. Although bending, and even giving ground, the British provincials would ultimately hold. Meanwhile on the eastern side, when the militia fled north, the disciplined British did not follow them. Instead, the British far right turned on the left (eastern) flank of the 1st Maryland Brigade. The 1st Maryland Brigade had no choice but to give ground. As the 23rd and the Light Infantry continued to press the Marylanders' exposed left wing, officers of the 1st Maryland Brigade sought out General Smallwood for orders to retreat. But Smallwood had left the field. Undaunted, they rallied the brigade, only to be forced back again. Again they rallied and again were driven back under pressure from the British right. The British 33rd Regiment took a tremendous fire as its left pivoted against Dixon's North Carolina militia.[90] Yet, eventually, the 1st Maryland Brigade was almost at a right angle with the American right, and as a result of being slowly pushed back, perhaps as much as a two hundred yard gap opened between the American left and right flanks. Williams rode to the 2nd Maryland Brigade, only to find them fully engaged and about to break. He called to them to stand, but Lieutenant Colonel Ford of the 6th Maryland Regiment answered, "They have done all that can be expected of them—we are outnumbered and outflanked—see the enemy charge with bayonets."[91]

It is at this point that the Americans paid for Gates disdain of cavalry. Cornwallis, seeing the gap between the Maryland brigades, ordered his front line to open their ranks. Then he threw forward his reserves, and most critically, ordered the cavalry into action.[92] A detachment of British cavalry under Major Hanger attacked the left flank of the 1st Maryland Brigade.[93] The rest, under Tarleton, "completed their confusion." Exactly what Tarleton means by this is not known.[94] Although most sources say the British cavalry attacked the American left flank, (meaning that they attacked the 1st Maryland brigade), either Hanger or Tarleton probably exploited the gap between the 1st and 2nd Maryland Brigades, turning right and left, and getting behind both.[95] In the process, they also captured the American artillery. Behind them came the 71st Regiment, filling the gap between the British 33rd and 23rd Regiments. The 1st Maryland Brigade was being pressed on both flanks and its rear.

Phase V: Rout of the Americans

With cavalry in their rear, and the 71st Regiment thrown into the British line, the Americans began to loose cohesion. Many Continentals fought on and were slaughtered. One Sutherland Highlander, who is said to have killed as many as seven Americans, ended the battle with his bayonet "twisted like a corkscrew."[96] Some Continentals were able to surrender, while still others broke into small clusters and attempted to fight their way out. Williams claims that "not even a company retired in any order," giving the false impression that the Continentals ran like the militia.[97] In making such a statement, he must be speaking only of the battlefield itself, otherwise, he contradicts himself by observing that Major Anderson, "rallied, as he retreated, a

few men of different companies; and whose prudence and firmness afforded protection to those who joined his party on the rout."[98] Williams also recorded that along the line of retreat the Continentals reformed and made their way to safety in little groups. "Colonel Gunby, Lieutenant Colonel Howard, Captain Kirkwood, and Captain Dobson, with a few other officers, and fifty or sixty men, formed a junction on the rout, and proceeded together." All these officers were in the 2nd Maryland Brigade.

There is good evidence that even on the battlefield, Continental units did not completely dissolve but, again, broke into small groups, some attempting to surrender and others fighting their way out. Tarleton recorded that General Gist retired into the swamp with about 100 Continentals "in a body….in a compact state."[99] This group waded into the swamps on the American right where the British cavalry could not follow. A few weeks after the battle, American militia Colonel John Banister wrote to a Colonel Bland, that some of the Marylanders actually broke through the British.

> Instead of all the Maryland line being killed and taken, near five hundred are come in, with most of the officers, particularly Smallwood, Cist [sic] and Gunby, who were said to have been slain. This veteran corps, after having sustained the attack of the enemy, with the assistance of only one regiment of North Carolina Militia, by a bold and well conducted attack on the enemy forced a passage through their main body and retreated. On their retreat they totally demolished a party of horse sent to harass them, except two only that escaped by flight.[100]

If this is Gist's command, it appears that Tarleton underestimated the number that got out through the swamp. If not, it means that separate groups of Americans fought their way off the battlefield as isolated, semi-cohesive forces.

Perhaps another final stand was made by the remnants of the 1st and 2nd Maryland Brigade on the north ridge (see Chapter 3, Figure 3.5). Once the battle was won and the Continentals killed, captured, or pushed into the swamps, the British cavalry was ordered north after the fleeing Americans. They did so with their usual vigor.

There is an eyewitness account that the Baron de Kalb was one of the final casualties of the conflict. A North Carolina militiaman stated in his memoir that after he had surrendered, he witnessed the General's final moments. De Kalb, on horseback was riding along the line when intercepted by a British officer, who demanded de Kalb's sword in surrender. De Kalb supposedly spoke French to the officer, apparently wanting assurances that the man was an officer—a proper individual to accept his surrender. The British officer again demanded his sword, and de Kalb for some reason decided to ride on. The British ranks then fired volleys by platoons and hit de Kalb several times. Stood against a wagon, or placed on an tree stump depending on sources, de Kalb was dying when Cornwallis rode up and seeing him said "I am sorry, sir, to see you, not sorry that you are vanquished, but sorry to see your so badly wounded."[101] De Kalb was taken to Camden and died three days later.

Gates, Caswell, and Armand, forced off the battlefield by fleeing militia and pursuing

British cavalry, continued to Rugeley's attempting to stop the flood. However, "the militia were struck with a panic and obeyed no more command."[102] At Rugeley's, Gates with the assistance of Colonel Armand and his cavalry, again attempted to rally the militia. There they found another problem. The wagon train that had been ordered north before the march to Camden had not gotten far. As Gates, Armand, and other American officers attempted to send them off, and rally the militia streaming by, Tarleton's cavalry appeared across the creek. Fortunately for the Americans, the British cavalry were widely dispersed. Tarleton had to assemble his dragoons before mounting any attack toward Rugeley's. The respite for the Americans was temporary, Tarleton quickly recalled his troopers and pushed across the creek. "Colonel Armand's dragoons and militia displayed a good countenance, but were soon borne down by the rapid charge of the legion; The chase again commenced. . ."[103] Tarleton pursued the militia some twenty-two miles up the road to Hanging Rock where he halted. Along the way his command captured one hundred and fifty wagons[104] and many American officers and men, including North Carolina militia under General Rutherford.

General Gates, was not one of them. Seeing that it was impossible to rally the militia, hearing no more firing in the direction of Camden, and being hard pressed by British cavalry, Gates and Caswell rapidly proceeded up the road to Charlotte. Once in Charlotte, he decided to ride on to Hillsborough to report the defeat, leaving Caswell at Charlotte to wait for stragglers to come in.[105] Gates' flight, covering 180 miles in three and one-half days, did nothing for his reputation; Alexander Hamilton quipping, "It does admirable credit to the activity of the man at his time of life. But it disgraces the general and the soldier."[106]

North Carolina militia melted into the countryside to make their respective ways home. Some Virginia militia eventually reassembled at Hillsborough, but were soon released as their time of service was complete. The Continentals likewise made their way to Charlotte, then Salisbury and Hillsborough. Many Continentals would show up in the next few weeks and with each returning soldier, the enormity of the catastrophe lessened. On August 24th, Francis Marion surprised a guard of British soldiers escorting 147 Continental prisoners of war from Camden to Charleston. Amazingly, close to half refused to be rescued, instead wanting to continue to Charleston under British escort. Of the other half, three joined Marion, 57 made it to Wilmington, the others probably deserted. Marion's British prisoners were sent to Wilmington.[107]

Casualty figures for the Camden battle will never be exactly known. Cornwallis reported 800 to 900 Americans killed and around 1,000 prisoners captured—but Landers states that this is "so far from correct that they are valueless as a guide. The militia broke early in the day and scattered in so many directions upon their retreat that very few were made prisoners."[108] That is probably right. Cornwallis's official return of prisoners lists only 603 privates and 92 officers, non-commissioned officers and musicians, plus another eight staff officers.[109] Only 38 privates from the Virginia militia were captured, many probably simply went home.[110] On July 19th, a return of Steven's Virginians listed as 1,081 fit for duty, but after the battle, on August 29th, only 351 remained fit for duty, with 483 listed as deserted.[111] There were 124 North Carolina privates listed as prisoners.

Among the Continentals, we have already noted that an unknown number made it back

to the American lines, either Charlotte or Hillsborough. Landers reports the loss of the "regulars" at about 300, a seemingly very low figure. Williams states that 832 failed to answer muster.[112] Cornwallis lists 441 Continental privates captured. Gates wrote from Hillsborough, North Carolina, on August 29th, that as many as 700 of the Maryland Division rejoined the Army.[113] Indeed, Smallwood's return of July 22, lists 1,071 "fit for action" and 1,744 in total, and by September 23rd, he had reconstituted the Maryland/Delaware Division with 860 fit for duty, and 1,157 in total.[114]

Meanwhile the wounded had little chance. Only 240 were carried from the field of battle to Camden.[115] Among the most critical American losses were the Continental officers and noncommissioned officers, including General de Kalb. Around 32 Continental officers were taken prisoner including Lt. Colonel Porterfield, who died of his wounds, and Thomas Pinckney, who survived.

On the British side, it is clear that, although the British won a resounding victory, they paid for it. Cornwallis' casualty figures indicate that he had 68 killed, 245 wounded, and 11 missing. The 33rd and Volunteers of Ireland took much of the American fire. The Volunteers of Ireland suffered a 28% casualty rate (87 of 303), and the 33rd fared even worse. The 33rd had only 238 effectives, and 100 were casualties, a casualty rate of 42%.[116] That was a tremendous blow, and they were all veterans who would be difficult to replace. The British would enjoy similar one-sided victories in the days to come, but their ranks would continue to thin.

For the time being, while many who escaped would later reform in Hillsborough, the battle was a costly defeat for the Americans. For the next few months, there was no American Southern Army. Cornwallis can be excused for feeling confident that South Carolina was won and that he could move against Charlotte. He was mistaken; Camden was not a fatal blow to the American cause. It must have been exasperating for the British that the victory did not at all translate into a subdued South Carolina. Only a day after Camden, on August 17th, the Americans won a small victory at Musgrove's Mill. Soon Francis Marion and Thomas Sumter—the latter barely surviving a costly defeat at Fishing Creek — began a partisan campaign against the British. Then, on October 7th, Major Patrick Ferguson was surrounded on Kings Mountain and Cornwallis was forced back into South Carolina. On November 20th, Sumter checked Tarleton at Blackstocks. By December, Gates had been replaced by General Nathanael Greene. The Americans would gain a major victory at Cowpens in January, doing much to erase the stain of Camden.

Aftermath

After Camden, Gates career was ruined. In Hillsborough, North Carolina, Gates attempted to reconstruct the army, writing letters to Congress in an attempt to gain supplies and men. Throughout the fall, he made some progress. On November 25th, Gates Southern Army had reconstituted itself into a force of 1,704 men fit for duty in Providence, North Carolina, but that increased to 2,604 when counting sick, furloughed, and detached.[117] He understood that his time was short. North Carolina Governor Abner Nash wrote Congress to remove him and his fellow officers lost confidence in him. While Congress replaced him with Nathanael Greene, a congressional committee exonerated his conduct. Overall, historians would be harder than his

contemporaries. Perhaps his successor should have the last word on Gates' performance. In January 1781, Greene wrote Alexander Hamilton:

> The battle of Camden here is represented widely different from what it is to the Northward. Col Williams thinks that none of the General Officers were entitled to any extraordinary merit. The action was short and succeeded by a flight wherein every body took care of themselves as well Officers and soldiers. . . .The Col also says that General Gates would have shared little more disgrace than is the common lot of the unfortunate notwithstanding he was early off, if he had only halted at the Waxhaws or Charlotte"[118]

Later, in October 1781, Greene would personally write Gates that:

> I had the opportunity of viewing the ground where you fought, as well as the disposition and Order of Battle, from all which I was more fully confirmed in my former sentiments, that you were unfortunate, but not blameable; and I am confident, from all the inquiries I have since made, you will acquit yourself with honor.[119]

Endnotes

[1]Report of Earl Cornwallis to Lord George Germain, Camden, South Carolina, August 21, 1780 in, Walter Clark, editor, *The State Records of North Carolina*, Volume XV 1780-81 (Goldsboro: Nash Brothers, Book and Job Printers, 1898), pp. 268 to 273; Report of General Gates to President of Congress, August 20, 1780, in John Austin Stevens, "The Southern Campaign, 1780, Gates at Camden," *Magazine of American History*, October 1880, V(4):241-301; Guilford Dudley, "The Carolina's During the Revolution, A Sketch of the Military Services Performed by Guilford Dudley- Then of the town of Halifax, North Carolina, During the Revolutionary War, in *Southern Literary Messenger*, 1845, Volume XI, March, pp. 144-148, April pp. 231-253, May, pp. 281-287, June pp. 370-374; Lieutenant Colonel Banastre Tarleton, *A History of the Campaigns of 1780 and 1781 in the Southern Provinces of North America* (Reprint, North Stratford, N.H.: Ayer Company Publishers, 1999, original 1787), pp. 103-116; General Thomas Pinckney, "General Gates' Southern Campaign," in *Historical Magazine* VolumeX(1866)8:244-253, also, his reply to William Dobein James July 31, 1822, in response to James' letter of July 25, 1822 in which he asks about the conduct of General Gates, in the Thomas Pinckney Papers, South Caroliniana Library, University of South Carolina; Colonel Otho Williams, "A Narrative of the Campaign of 1780," Appendix A, in William Johnson, *Sketches of the Life and Correspondence of Nathanael Greene, Major General of the Armies of the United States in the War of the Revolution*, Volume 1 (Charleston: A.E. Miller, 1822), pp. 485-503. See also, C. Stedman, *The History of the Origin, Progress, and Termination of the American War* (London: J. Murray et al., 1794), pp. 204-213. Stedman was "commissary" to Lord Cornwallis' troops and possibly an eyewitness of the battle. As will be seen, there are also quite a few brief eyewitness accounts that add useful insights.

[2]John Buchanan, *The Road to Guilford Courthouse* (New York: John Wiley and Sons, Inc, 1997), pp. 157-172; Thomas J. Kirkland and Robert M. Kennedy, *Historic Camden, Part One Colonial and Revolutionary* (Columbia, SC: The State Company, 1905), pp. 146-170l; Charles Bracelen Flood, *Rise, and Fight Again, Perilous Times Along the Road to Independence* (New York: Dodd, Mead, & Company, 1976), pp. 278-342; Lieutenant Colonel H.L. Landers, The Battle of Camden, *House Document No. 12*, 71st Congress, 1st Session, (Washington, D.C.: 1929); Paul David Nelson, "Horatio Gates in the Southern Department, 1780: Serious Errors and a Costly Defeat," *The North Carolina Historical Magazine*, Volume 1(1973)3:256-272; George F. Scheer and Hough F. Rankin, *Rebels and Redcoats* (New York: [third edition] World Publishing, 1972), pp. 401-411; Christopher Ward, *The War of the Revolution* (New York: Macmillan Company, 1952), pp. 717-730.

[3]See, Landers, *Battle of Camden*, p. 4.

[4]Thomas Pinckney states that Gates joined de Kalb on the 25th, but he likely means that he took command on the 25th which is correct, see Pinckney's reply to James, July 31, 1822.

[5]The 1st Maryland Brigade consisted of the 1st, 3rd, 5th, and 7th Maryland Regiments. The 2nd Maryland Brigade consisted of the Delaware Regiment and the 2nd, 4th, and 6th Maryland Regiments, see Mark M. Boatner III, *Encyclopedia of the American Revolution* (New York: David McKay Co., Inc., 1966), p. 166.

[6]Flood, *Rise*, pp. 284-285.

[7]Williams, *Narrative*, p. 487. Gates has been roundly criticized for taking this route and it is probable that his decision had a lot to do with army's poor physical health on the morning of August 16th. However, historian Charles Flood, repeating an argument first proposed by eyewitness Thomas Pinckney, offers a defense of Gates. Pinckney and Flood argue that the patriots in South Carolina would interpret the march west as abandonment. Second, according to Pinckney, the army had few provisions at Buffalo Ford and subsisted by daily foraging parties. Gates said, "We may as well move forward & starve, as starve lying here." He maintained that the route to Masks Ferry was "known" to be fertile. Further, that de Kalb first, and then Gates second, could not get control of General Caswell and his North Carolina militia, who were acting independently in South Carolina. By marching southwest, Gates was drawing nearer to Caswell, hoping to take charge of the errant commander and his troops before they were lost in a unnecessary battle, see Flood, *Rise*, Chapter 44, and Pinckney's "Southern Campaign," pp. 250-25, and reply to James, July 31, 1822.

[8]Some historians have wondered why there was green corn in August, but Otho Williams notes that the corn was a second crop, "…the preceding crop …was exhausted," see, Williams, *Narrative*, p. 487.

[9]Few references mention this request, but see Ward, *Revolution*, p. 719.

[10]De Kalb to Major General Caswell, July 10th, 1780, on file with the author, South Carolina Institute of Archaeology and Anthropology. Columbia, South Carolina. Marion as bodyguard see Flood, *Rise*, p. 285.

[11]Williams, *Narrative*, p. 490.

[12]Tarleton, *History*, p. 99.

[13]Flood, *Rise*, p. 306.
[14]Gates, Report to Congress, p. 302 in Stevens. Otho Williams, does not mention the North Carolina Militia being detached, see, *Narrative*, p. 492. Historians, convinced of Gates' military incompetence, have pointed to this decision as an example, see Ward, *Revolution*, p. 722. But again, Pinckney, an eyewitness, comes to Gates rescue. He argues that Gates had no real intention of an open battle with the British. In fact, Pinckney states that he asked Gates directly if Gates intended to attack the enemy. Gates responded "No!" In what turns out to be alarming irony, Gates' reasoning was "the number of Militia who formed the bulk of his army." Thus Gates was well aware that the militia was not to be relied upon. In any case, the decision to aid Sumter, and subsequent orders to march toward Camden (see below) were to "take post" on the ridge above Saunders Creek (as Gates states in his Report to Congress) probably to force Rawdon (Cornwallis) to abandon Camden or attack Gates in a fortified position. In this light, Sumter's westward flanking maneuver to capture the supplies would have further pressured the British if, as Gates and Sumter believed, the British were thinking of retreat, see Pinckney, *Southern Campaign*, pp. 244-246. Williams does not make this explicit, but his comment that "The colonel's [Sumter] accurate knowledge of the geography of the country, and the qualities of the men who were his followers, favoured the execution of this enterprise," *Narrative*, p. 492 can be interpreted to mean he approved of the decision.
[15]According to Colonel John Senf, Gates also wanted to be closer to Sumter who was operating on the western side of the Wateree, see, Colonel John Senf, "Extract of a Journal Concerning the Action of the 16th of August 1780 Between Major General Gates and General Lord Cornwallis," Library of Congress.
[16]Pinckney, "Southern Campaign," p. 245.
[17]Gates, Report to Congress, p. 302 in Stevens. Landers states that it was about 5 ½ miles from Camden, see Landers, *Battle of Camden*, p. 23.
[18]A loyalist spy had walked into the American camp under the guise of being a friend of the American cause. He was showed to Gates, and the spy promptly offered some information about the British outpost at Camden and left with promises of more. Then the spy reported to Cornwallis his observations of the American camp (Cornwallis to Lord Germain, in *State Records of North Carolina*, p. 270).
[19]*Ibid*., p. 269.
[20]Gates letter, August 20th, in Stevens, p. 302.
[21]Williams, *Narrative*, p. 493.
[22]If Williams' post-war narrative is accurate, the combined exhaustion of the troops and grumbling in the officer corps suggests low morale in Gates' army.
[23]Charles Stedman also later recorded that the countryside was in revolt upon the news of Gates arrival, see Stedman, *History*, p. 205.
[24]*Ibid.*, p. 494.
[25]Gates, August 20th, in Stevens.
[26]Williams, *Narrative*, p. 493.
[27]Landers, *Battle of Camden*, p. 28.
[28]Dudley, *Sketch*, p. 146.
[29]But see discussion, footnote 64.
[30]Calvin Keyes has calculated that the moon was 99% full that evening, and at 2:30 A.M., the moon was 39.2 degrees above the horizon shining out of the southwest skies at 201.3 degrees. This would place it behind the British giving them the advantage, see http://jrshelby.com/camdenproj/moon.htm, accessed August 26, 2002.
[31]Dudley, *Sketch*, p. 146. Although this seems to be a question, there is no question-mark in the quote.
[32]Tarleton, *History*, p. 104.
[33]Senf, *Extract*.
[34]Williams, *Narrative*, p. 494. Porterfield was mortally wounded in the exchange. Colonel Guilford Dudley, serving in the North Carolina Militia, helped carry off Porterfield and stayed by his side, well forward of the American line, until daylight when the cannon called Dudley back to the fight, see Dudley's pension deposition in John C. Dann, *The Revolution Remembered: Eyewitness Accounts of the War for Independence* (Chicago: University of Chicago Press, 1980), pp. 221—228.
[35]Senf, Library of Congress. Senf was sent to Congress by Gates with news of the defeat.
[36]Pinckney, "Southern Campaign," p. 250.
[37]Dudley, Sketch, p. 231.
[38]Tarleton, *History*, p. 105.

[39]Williams, *Narrative,* p. 494. The length of this night action will never be decisively determined. Most sources indicate that both sides ceased firing until daylight. Williams states there were "frequent skirmishes" between "advanced parties" until the battle began, and this is supported by Dudley's account, see Dudley's *Sketch*.
[40]Colonel Dudley assisted in getting Porterfield to the rear and was almost found by a British patrol. See Dudley, *Sketch,* p. 234.
[41]Tarleton, *History*, p. 105.
[42]Williams, *Narrative,* p. 495.
[43]Williams apparently disagreed that it was too late to retreat. Although he does not say so outright, he states that when he went to get de Kalb for the council of war, de Kalb replied "Well, and has the general given you orders to retreat the army?" However, de Kalb did not oppose Stevens' comment, so it is difficult to determine what de Kalb meant by his question. It could have been a sarcastic comment to the effect that "What else is there to do but fight?" rather than Williams' interpretation that de Kalb thought they should retreat. Here Pinckney's interpretation of events seems more reliable. He notes that sunrise was expected at 5:34 A.M. and that twilight was expected 4:30. Given the nearness of the British, and lack of cavalry for screening a retreat, perhaps only an hour and a half until daylight, and the road behind him choked with supply wagons, Gates had no choice but to fight.
[44]It might be that there simply was no time to rearrange the line. With more time available, another formation may have had greater success.
[45]Williams, *Narrative,* p. 495. Williams states that the American front was too narrow to include the 1st Maryland Brigade. This is an important clue to exactly where this front can be found on the battlefield today—see the archeological discussion in this report. Dr Lawrence Babits offers another possibility for Gates placing the 1st Maryland Brigade in the rear. His research leads him to hypothesize that the 1st Maryland Brigade was somewhat disordered in the night battle and was held in reserve after recovering from that engagement.
[46]The exact number of Americans in the battle needs additional research. These figures are from Landers, B*attle of Camden*, p. 40. Babits suggests that Landers' estimates of strength in the 1st and 2nd Maryland is too low, while the number in Armstrong's light infantry and Armand's cavalry is too high. He believes that Porterfield had only had 200 men and Armand around 60, he references Williams and Dudley as support.
[47]There is great consistency among the eyewitnesses regarding the order of battle, see Williams, Gates, and Tarleton. The placement of the artillery however is not. Tarleton states that "The principal part of the American artillery was posted to the left of their right wing of continentals: the remainder was placed in the road, under the protection of the reserve," see Tarleton, *History*, p. 106. This seems to agree with Stedman's map. Senf however, states that there were two field pieces "on his [Gist] right" and two on the road, between the NC militia and the continentals, and two more between the NC militia and the Virginia militia. Williams remembers that they were "removed from the center of the brigades, and placed in the center of the front line," Williams, *Narrative,* p. 495. Babits believes the artillery was posted with two guns in the center of the 2nd Maryland Brigade, two guns were along the road, and two others were on the left flank (ie. along the road) of the 1st Maryland Brigade in the rear. See footnote 78 for evidence of the majority of the artillery being along the road. Total American officers and men on the battle line were in the neighborhood of 3,700 according to Landers, *Battle of Camden*, p. 28. Babits believes there were more, especially in the 1st Maryland Brigade (Babits, comments on draft, October, 2008).
[48]Williams says 500 to 600 yards, see Williams, *Narrative*, p. 494, Pinckney says they were only 200 to 300 yards away, see Pinckney, "Southern Campaign," p. 249.
[49]An account by a North Carolina loyalist claims that they laid on their arms that night, but reformed in column and marched another mile before reforming for battle in the morning. We can find no other account that supports this, see "Extract of a letter from an officer, August 21, 1780," *Royal Gazette* of New York, September 23, 1780, quoted in Jim Piecuch, *The Battle of Camden: A Documentary History*, Charleston: History Press, 2006:94.
[50]Pinckney, "Southern Campaign," p. 249.
[51]Dudley, Sketch, p. 234.
[52]Senf states that the American pickets were driven back before the artillery opened fire.
[53]Williams, *Narrative,* p. 495.
[54]Pinckney, who was with Gates at the time, tells a similar tale. However, he says he did not hear the exchange between Williams and the General and states that there was no hesitation in the General. He acted quickly ordering Stevens to attack while the British were still maneuvering.
[55]Senf states that Gates rode to Gist to give him the order to advance. Given Williams' and Pinckney's accounts, this must be discounted.
[56]Senf, p. 277.

[57]Williams' account of the battle makes Williams sound like he was a brilliant officer hamstrung by an incompetent Horatio Gates. While his account is obviously self serving, Williams was certainly appreciated by Gates' replacement Nathanael Greene, and his account provides the most details about the battle, see Williams, *Narrative*, p. 495.
[58]By the time Williams got to Stevens, hope of catching the British in column was gone. Williams records, "The right wing of the enemy was soon discovered *in line*—it was too late to attack them in displaying; nevertheless, the business of the day could no longer be deferred" italics in original, see Williams, *Narrative*, p. 495.
[59]*Ibid*., p. 495.
[60]Another key to placing the troops on the battlefield is indicated here. A secondary source, but apparently from an eyewitness account, states that the British Provincials lined up "with the marshy ground in their front" (see interpretive chapter this report), Colonel David Stewart, *Sketches of The Character, Manners, and Present State of the Highlanders of Scotland*, Volume II (Edinburgh: John McDonald Publishers, Ltd., 1977), p. 67.
[61]Cornwallis Report, *State Records of North Carolina*, p. 276.
[62]Landers, *Battle of Camden*, p. 61.
[63]Cornwallis's report, in *State Records of North Carolina*, p. 271. It is interesting to note that Cornwallis was able to see the second line by this point in the morning, indicating visibility for both sides must have been very good. Loyalist North Carolina Governor Joseph Martin states that the enemy was discovered "advancing in a heavy Column and very near to the right of our line," see Governor Martin to the Secretary of State, 18th August, 1780, in *State Records of North Carolina*, p. 54. He may be referring to the 1st Maryland Brigade (since the militia should have already been in line), and if so, this indicates excellent visibility at that instant.
[64]Stewart, *Sketches of Highlanders*, p. 68.
[65]William states this twice, see Williams, *Narrative*, p. 495.
[66]Babits hypothesizes the British troops had not completed their deployment eastward when Cornwallis noticed the Americans on the move and decided he had to attack immediately. This is supported by some sources, see for example, Senf, *Extract*.
[67]Stevens rallying cry is reported by Williams.
[68]Governor Abner Nash adds to the shame of the militia by pointing out that the militia were drawn up in two lines while the British "from a defect in numbers, were only a single file five feet apart, yet the Militia, tho' so much superior in numbers, gave way on the first fire, and fled with the utmost precipitation..." Governor Abner Nash to the Delegates in Congress, Hillsborough, August 23rd, 1780 in Walter Clark, editor, *State Records of North Carolina*, Volume XV, (Goldsboro: Nash Brothers Book & Job Printers, 1898), p. 60. Babits estimates that the British were forced to thin their lines so as to cover the American front, thus advancing in the famous "thin red line."
[69]Williams, *Narrative*, p. 496.
[70]*Ibid*., p. 495. Three months after the battle, Virginia militiamen apologized in a petition to the legislature stating that they were "Panic-struck by the noise and terror of a battle which was entirely new to most of us; we. . .were so unhappy as to abandon the field of battle." In, "Petition and memorial of Sundry Militiamen of the Tenth Division of Amherst County to Virginia House of Delegates, November 9, 1780, Virginia State Library, Richmond.
[71]Garret Watts, pension account, quoted in John C. Dann, Editor, *The Revolution Remembered: Eyewitness Accounts of the War for Independence* (Chicago: The University of Chicago Press, 1980), p. 195. Despite Watts candid confession, it is doubtful he was the first to fire or flee.
[72]Williams, *Narrative*, p. 496. A pension account by one Willoughby Blackard indicates that he served with a company of North Carolina Continentals under a Captain Edward Yarborough attached to Dixon. This may help to explain the resolve of Dixon's unit.
[73]Pinckney, "Southern Campaign," p. 250.
[74]Dudley, Sketch, p. 281.
[75]Stewart, *Sketches of Highlanders*, p. 68.
[76]Lamb, Journal, 1809.
[77]Dudley, Sketch, p. 281. There is one eyewitness account from the 4th Maryland Regiment (in the 2nd Maryland Brigade) who implies that the 1st Maryland Brigade advanced beyond the 2nd. Colonel Josias C. Hall records "The first Brig[ade] was about 100 yards on our left & in our van with both flanks exposed so that they were [?] & broke before us tho they behaved as well as men could." This is from a document on sale on website www.alexautographs.com and may have been sold as it no longer is on the site, Hall, August 28, 1780.

[78]Pinckney's aside that the ammunition wagon was attempting to escape must mean that even before Smallwood was flanked, the militia flight had convinced support troops in the rear that all was lost.
[79]Gates, Report, August 20th, 1780.
[80]Dudley, *Sketch*, p. 281.
[81]*Ibid*., p. 281.
[82]*Ibid*., p. 282. If the fleeing militia took the Cheraw road, that would mean they went east and over some of the roughest terrain surrounding the battlefield.
[83]Its possible that Dixon's command advanced also.
[84]Dudley, *Sketch*, p. 281, Stewart, *Sketches of Highlanders*, p. 68.
[85]Cornwallis states that there was "a little haziness in the Air, which, preventing the smoke from rising, occasioned so thick a darkness that it was difficult to see the effect of a very heavy & well-supported fire on both sides." Tarleton's account is almost identical noting that "both armies in such a cloud, that it was difficult to see or estimate the destruction on either side," and finally, a soldier of the 23rd notes that the smoke "occasioned such thick darkness, …" See Cornwallis, Report to Lord Germain, August 21, 1780, Tarleton, *History*, p. 107, and Roger Lamb, *An Original and Authentic Journal of Occurrences During the Late American War from its Commencement to the Year 1783*, Dublin, 1809, p. 303.
[86]Dudley, *Sketch*, p. 281.
[87]Tarleton, *History*, p. 107.
[88]Tarleton, *History*, p. 107. Babits hypothesizes that the 33rd Regiment, essentially in the center of the British line, was stopped dead after advancing only a few hundred yards. When the British left (Loyalists) fell back, the left flank of the 33rd was exposed to a deadly fire from both the Continentals, the American artillery and Dixon's Regiment. The 33rd did indeed suffer heavy casualties. Thomas Pinckney makes an observation that is critical to the archaeological interpretation of the battle. Pinckney, wounded and captured by the British, was told by one of their officers "that the first discharge of our [American] Field pieces put sixty men *hors de combat*." This is especially intriguing because, logically, this kind of damage must have been done by firing case shot, and the location of case shot balls found on the battlefield provide solid evidence of the location of the two armies initial locations, see Pinckney's reply, and see archaeological section. It also implies that the first fires caught the British either in column or displaying from column to line. Senf's account provides additional evidence, "Their main body displayed to their Right of the Road, when in [the] time they displayed, our field pieces made a good fire upon their column" see, Senf, *Extract*.
[89]Cornwallis noted that there was an "obstinate resistance during three quarters of an hour," Cornwallis, Report to Lord Germain, August 21, 1780.
[90]Guilford Dudley states that the 1st Maryland Brigade was driven "out of line" first, then Dixon's command, much like the domino effect seen with the militia units, see Dudley, *Sketch*, p. 282.
[91]Williams, *Narrative*, p. 496.
[92]There may have been a pause at this point, allowing the smoke to clear revealing to both sides the positions of their forces. Shortly after the American right gave three cheers of victory, ". . . the smoke clearing up, they quickly saw their mistake; and a party of the Highlanders turning upon them, the greater part threw down their arms, while the remainder fled in all directions," *Sketches of Highlanders*, p. 68.
[93]Tarleton, *History*, p. 107; Gates, Report, p. 303.
[94]Senf also states that Colonel Armand's cavalry attempted to oppose this charge but was too weak. It is far more likely Armand was with Gates using his cavalry to cover the militia.
[95]Tarleton, *History*, p. 107; There is much support for the hypothesis that the British cavalry shot the gap between the two American Brigades, although the main eyewitness are not clear on this point. Seymour was with the 2nd Maryland Brigade. He states that the British got entirely around them before being discovered, and that this caused the American rout. It is not clear if he means cavalry or infantry or both [William Seymour, "A Journal of the Southern Expedition, 1780-1783" in *The Pennsylvania Magazine of History and Biography*, Volume VII(1883), p. 288]. Senf says the cavalry "wheeled to the right and left, took the 1st and 2nd Maryland Brigades in their flank and rear." Finally, another eyewitness, American officer Major [?] McGill, states clearly that there was a "chasm" between the two brigades "through which the Enemy's Horse came and charged our rear." McGill, letter to his father, August 1780, from Appendix, Stevens, "Gates at Camden," p. 278. There is some on-going debate about the cavalry's participation. Babits is skeptical that the cavalry would maneuver too far off the main road since the battle was fought in a woods and a man on horseback would be wary of overhanging limbs. However, we believe that the trees were not a significant obstacle, the tall pine of the virgin colonial forests created wide open spaces with

little under-story to hinder maneuver. Certainly, the cavalry would have preferred the road, and would not have ventured far alone in the woods without the support of the infantry.

[96]Dr. Chisholm quoted in Stewart, *Sketches of Highlanders*, p. 69.

[97]Williams, *Narrative*, p. 496.

[98]*Ibid*., p. 497.

[99]Tarleton, *History*, p. 108.

[100]Colonel John Banister to Colonel Bland, in Walter Clark, editor, *State Records of North Carolina*, Volume XV, (Goldsboro: Nash Brothers Book & Job Printers, 1898), p. 65.

[101]The memoir of Humphrey Hunter is related in Kirkland and Kirkland, *Historic Camden, Volume 1*, pp. 186-187.

[102]Senf.

[103]Tarleton, *History*, p. 108. Williams has a different opinion of Colonel Armand command and their behavior on the retreat. He asserts that Armand did not take any part in the action of the 16th, retiring early in the battle and plundering the baggage trains heading north. It is possible that he is correct and Tarleton misidentified whom he fought against at Rugeley's Mill. Williams, quite candidly notes that he too, requisitioned some Madeira wine from General Caswell's mess wagon, which was the only sustenance he had that day. See Williams, *Narrative*, p. 498.

[104]There were 22 ammunition wagons captured—and it is not clear if this is part of the 150 wagons captured overall, see Cornwallis, Letter to Lord Germain, August 21, 1780.

[105]Gates, Report, August 20th, 1780.

[106]Alexander Hamilton quoted in, Mark Mayo Boatner, *Encyclopedia of the American Revolution* (New York: David McKay Company, Inc., 1966), p. 415.

[107]William Dobein James, *A Sketch of the Life of Brigadier General Francis Marion*, 1948 reprint of 1821 original Marietta, Georgia: Continental Book Company, p. 55. James states that all the liberated Continentals deserted Marion, but Col. James Read wrote a letter to Jethro Sumner on September 12, 1780 stating that 57 arrived at Wilmington, *State Records of North Carolina*, Volume 14, p. 771, see also *South Carolina American General Gazette* Sept. 6th, 1780. Perhaps James only means they "deserted" Marion but not the American cause. On the British prisoners, see letter, Marion to Gates, September 15, 1780, in the *State Records of North Carolina*, volume 14, p. 617.

[108]Landers, *Battle of Camden*, p. 62.

[109]Return in Carleton papers, cited from Jim Piecuch, *The Battle of Camden*, p. 148.

[110]Reverend Dr. Gordon, who wrote of the battle in 1788, states that 300 North Carolina militia, and 63 wounded, were made prisoner, while only three Virginia militiamen were "left wounded on the field," and "but few" were captured. He gives a casualty figure of 604 rank and file. See Gordon's account in John Austin Stevens, "Gates at Camden, " p. 250.

[111]Horatio Gates Papers, "Return of Virginia Brigade. . ", July 19th, 1780, Reel19:frame 363, "Return of Virginia Brigade," August 29th, 1780, Reel 19:frame 403, microfilm on file, Thomas Cooper Library, University of South Carolina.

[112]This includes three Lt. Colonels, two Majors, 15 Captains, 13 Subalterns, two staff officers, 52 non-commissioned officers, 34 musicians, and 711 rank and file, Williams, *Narrative*, p. 505.

[113]Gates to Congress, August 29, 1780, quoted in Tarleton, *History*, p. 153.

[114]Horatio Gates Papers, "Return of 1st Maryland Brigade. . ", July 22nd, 1780, Reel19:frame 378, "Return of 1st Maryland Brigade," September 23rd, 1780, Reel 19:frame 429, microfilm on file, Thomas Cooper Library, University of South Carolina.

[115]Doctor Hugh Williamson account, referenced in Piecuch, *Battle of Camden*, p. 116.

[116]Landers, *Battle of Camden*, p. 62.

[117]Horatio Gates Papers, "Return of the Southern Army. . .", microfilm reel 19, frame 478, on file, Thomas Cooper Library, University of South Carolina.

[118]General Nathanael Greene to Alexander Hamilton, January 10th, 1781, in Richard K. Showman, Dennis M. Conrad, Roger N. Parks, and Elizabeth C. Stevens, editors, *The Papers of General Nathanael Greene*, Volume VII, 26 December 1780—29 March 1781 (Chapel Hill: The University of North Carolina Press, 1994), pp. 87-91.

[119]General Nathanael Greene to General Horatio Gates, October 4th, 1781, in Dennis M Conrad, Roger N. Parks, and Martha J. King, editors, *The Papers of Nathanael Greene*, Volume IX, 11 July 1781-2 December 1781 (Chapel Hill: The University of North Carolina Press, 1997), pp. 425-436.

CHAPTER 3: THE CAMDEN BATTLEFIELD COLLECTOR SURVEY, 2000-2008

Introduction

This chapter is an update of the Camden Battlefield Collector Survey discussion originally presented in the 2005 report but incorporates two new collections. While the primary focus of this project was a controlled metal detector survey, the Collector Survey continued, and yielded important new information. Two additional, and especially significant, collections were documented during this project, bringing the total to 14 collections. As a result, the Collector Survey distribution maps published in 2005 have been revised accordingly, and projected onto the two-foot contour map. The collector data continues to be a critical component in the effort to understand the Battle of Camden.

The Camden Battlefield Collector Survey was designed to salvage artifact information that had already been removed from the Camden battlefield to assist battle interpretations. While the battlefield was undeveloped and relatively well preserved as a landscape, as an archaeological resource it had suffered serious damage through decades of relic collecting with metal detectors and earlier as a result of artifact pickup. This resulted in the removal of most battle related artifacts. To help mitigate that loss, the Collector Survey entailed a concerted, long-term effort to identify and interview individuals who collected artifacts from the site in a pragmatic effort to salvage whatever information they could provide (Legg 2000; Fields, Smith and Legg 2003; Legg, Smith and Wilson 2005). The hope was that this information would provide a mapped record of artifact distributions that might tie the Battle of Camden, as understood from the historical record, to the present landscape. A second goal was to document a large sample of the material assemblage used by the opposing armies in 1780. This technique has proven useful on heavily collected military sites that might otherwise have yielded far less information to archaeologists (e.g. Legg and Smith 1989; Legg and Espenshade 1991; Espenshade et al 2001).[1] A final goal was to locate any unmarked burials. The results of this effort are discussed in a separate report.

Methods and Results

The methods employed for the Collector Survey remain essentially unchanged from the initial effort (Legg, Smith and Wilson 2005:47-60). Data collection procedures have been simple and informal, involving on-site visits, phone conversations, and e-mail. It was intended that the following tasks be undertaken for each informant:

1. A meeting on the site, with a walking discussion/interview regarding the collector's finds and impressions, and his collecting history.
2. Recording on a standard base map of the "find spots" of as many particular, described arti facts as possible, together with any general observations.
3. Examination of the collection, if available, and photographic documentation of selected artif acts.

As might be expected, the quality of data recorded varies considerably. No collector

provided specific proveniences for ammunition specimens, but other battle artifacts of any sort (e.g. buttons, musket parts) were relatively rare finds, and consequently, their provenience was memorable. In most cases, informants were able to map most individual finds *other than* lead shot. The confidence with which artifacts were plotted varied. On the poor end of the scale, the location of an artifact might consist of simply a wave of a hand in the direction of a clump of trees – perhaps a 20-meter margin of error. Much of this uncertainty is the result of the clear-cutting of large portions of the battlefield in 1998, which eliminated the visual frame of reference over large areas (Legg, Smith and Wilson 2005:12). Two collectors used GPS instruments to record their finds, which they cataloged, photographed, and presented on CD ROM (e.g. Legg, Smith and Wilson 2005:50). Other collectors had previously mapped finds on their own sketch maps, and this information was transferred to the base map. Even the most general "plots" of individual items were recorded as points, and all such proveniences were considered adequate for the overall, large-scale *distributional* information that was sought.[2]

All data, from generalized ammunition distribution maps to precise GPS locations was transferred onto U.S.G.S. topographic maps; through 2005, the USGS Camden North quad map was used. For this project, we used the much more detailed two-foot contour map. Each plotted artifact was described in an accompanying catalog. The catalog system is common to both the Collector Survey and the archaeological metal detector survey effort detailed in Chapter 4.[3] Appendix I lists the collection code numbers assigned to date. Each artifact is also assigned a functional class code, including:

S: Lead shot - musket balls, buckshot, and intermediate shot for pistols, rifles, etc.
A: Arms and accoutrement parts – gun parts, gun tools, bayonets, scabbard and cartridge box hardware, etc.
C: Clothing objects – military and civilian buttons, knee buckles, shoe buckles, neck stock buckles.
G: Iron and lead case shot balls.
M: Miscellaneous objects that may or may not be battle artifacts, but which plausibly date to the 18th century – eating utensils, wrought iron hardware, iron frame buckles, etc.
N: Misc. objects that are clearly not battle artifacts, but were nevertheless recorded in a private collection or collected during the metal detector survey (e.g., an 1829 dime).

By far the most common artifact recovered by all collectors was lead shot, chiefly musket balls, and buckshot from musket buck and ball cartridges. These mundane projectiles were ubiquitous, and as a result *none* of the collectors recorded to date maintained specific location information for particular ammunition specimens. More than 2,600 musket balls and buckshot were collected by the informants, but their provenience is remembered only in very general terms. Two collectors had bagged most of their lead shot by various described proveniences (e.g. "west of highway, head of ravine"), but the remainder combined their shot in a single collection covering the entire battlefield. Three of the latter collectors did maintain sketch maps that indicated quantities of lead shot recovered from different parts of the battlefield, but these notations were not linked to particular specimens. The collector ammunition data is rough and incomplete. Nevertheless, data from the five collections about which something particular is known, together with observations from several collectors concerning lead shot distribution, was combined to prepare a generalized lead shot density map (Legg, Smith and Wilson

2005:54), which is substantially revised for this report (Figure 3.1). This distribution necessarily combines fired and unfired shot of all calibers, but it includes no areas that were dominated by unfired ammunition, which would indicate a camp or other non-combat episode. In the private collections as well as in the metal detector survey (Chapter 4), the ratio of fired to unfired balls is nearly three to one.

The collector data was first applied to a series of GIS map layers that illustrate the plotted finds in each collection. The most useful product of the Collector Survey is the next step – maps showing finds, by functional class, of all collections combined. Figures 3.2, 3.3, 3.4, and 3.5 illustrate revised versions of the results of plotting arms and accoutrement artifacts, clothing artifacts, and artillery case shot balls from all 14 private collections. These are the three meaningful categories of plotted artifacts in terms of overlaying the Battle of Camden on the present site. Combined with the admittedly less precise data on the ammunition density map (Figure 3.1), and correlated with the metal detector survey (Chapter 4), this information has proved extremely valuable in reconstructing the battle (see Chapter 5).

An important limitation in the 2005 Collector Survey was the failure to locate any informant who intensively collected the site prior to 1980, when "Anonymous Collector #1" (Collection 01) first visited the battlefield. He recalled even then battlefield showed the tell-tale signs of heavy collecting – small excavations, discarded non-battle artifacts on the ground surface, and a scarcity of "easy" artifact readings. In 2006, the authors were introduced to two individuals responsible for at least some of that earlier collecting. These informants, both of whom preferred to remain anonymous, began collecting the Camden Battlefield in 1972 (#16) and 1974 (#17) (Figures 3.6, 3.7, 3.8, 3.9). Their early information has provided a clearer picture of the original artifact distribution densities. Both collectors had read the 2005 report, and both agreed with that battle interpretation. They reported that two areas evidenced particularly heavy musket fire when metal detected in the 1970's; these included what we considered the Continental right, or western flank, where it was anchored on a swampy drainage, and a strip along the east side of Highway 58, running southeast from the DAR property for some 500 meters. The area that might have connected these two concentrations, from Highway 58 west to the Continental right, was then heavily overgrown in a field of young planted pines – it was this area that several later collectors (#'s 1, 2, 3 and 4) considered the scene of the heaviest action. This agrees remarkably well with both the battlefield interpretation presented in the 2005 report and the general distribution of battle artifacts recovered during our formal metal detector work (Chapter 4).

Conclusions

The original Collector Survey indicated an interpretation of the battlefield that the authors believed was essentially correct. Newly recorded collections (#'s 16 and 17) and our own extensive metal detecting project (Chapter 4) have confirmed and refined our original interpretation of the battlefield (Chapter 5). We can reiterate that the outermost density boundary depicted on Figure 3.1 encompasses the area of significant action during the Battle of Camden proper. A substantial minority of the battlefield was thus located outside of the original PCF property, to the north and northwest, a deficit has been substantially answered by the recent tract purchase by PCF.

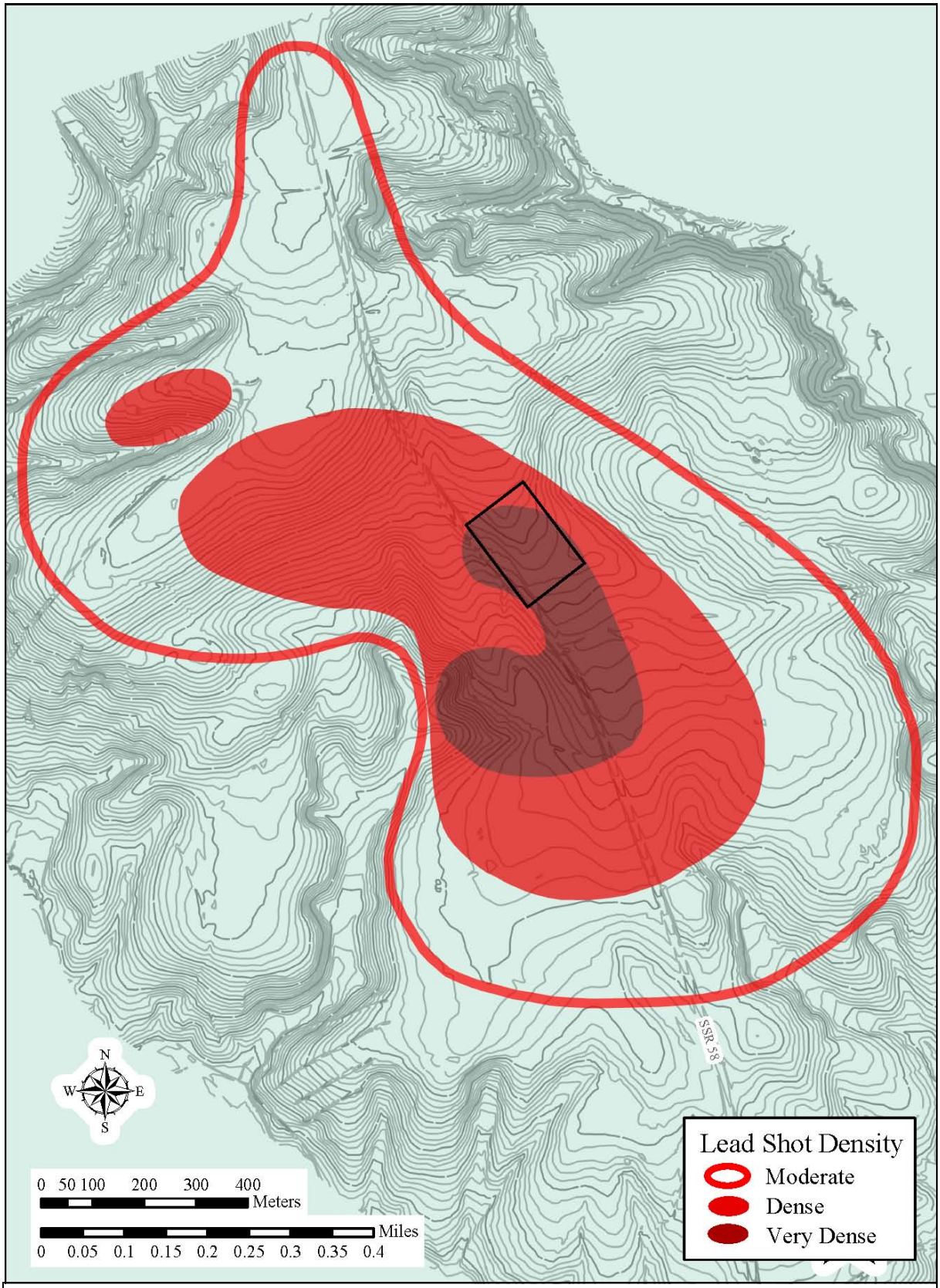


Figure 3.1 Generalized distribution of lead shot, revised.

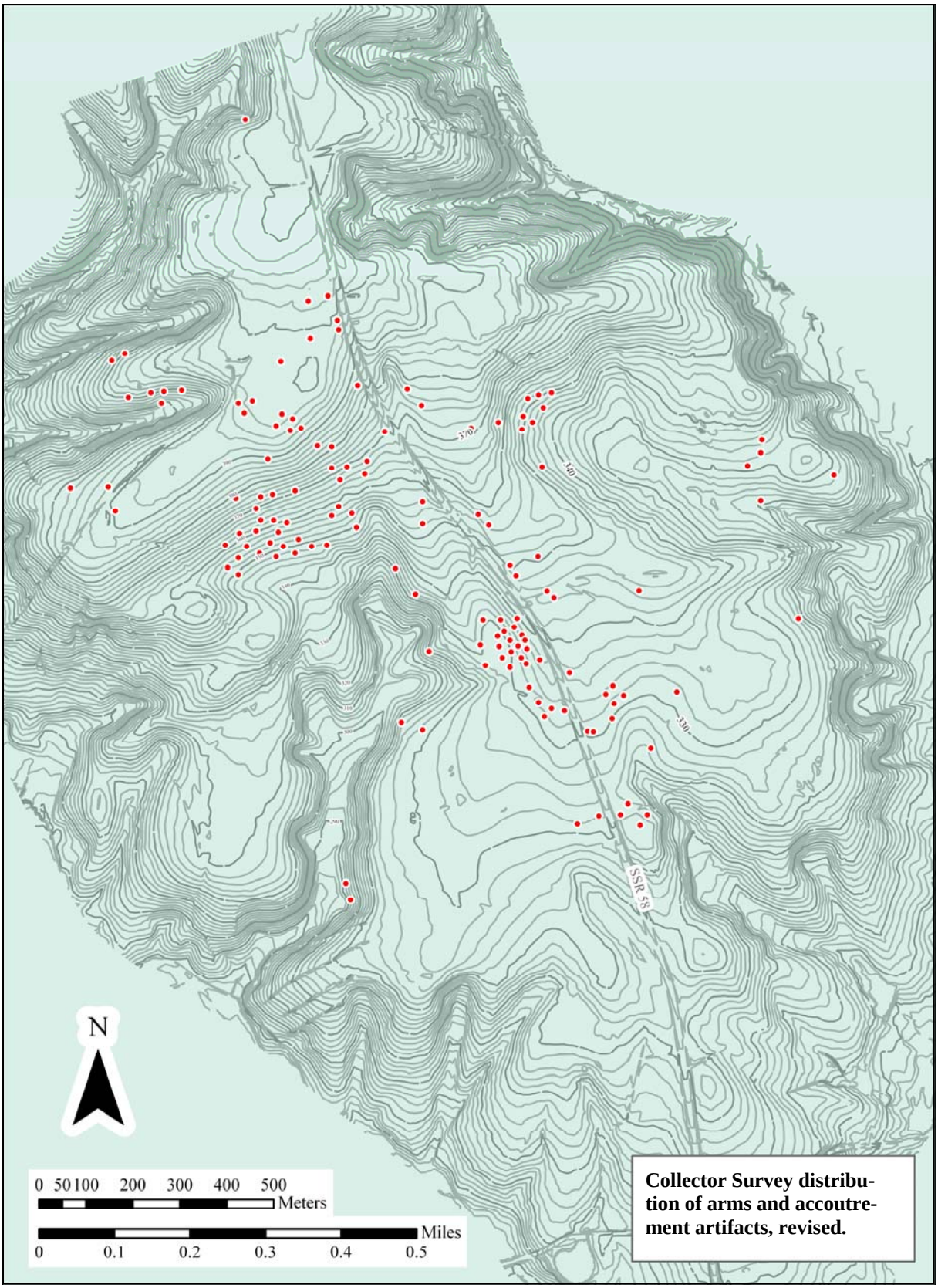


Figure 3.2 Collector survey distribution of arms and accoutrement artifacts, revised.

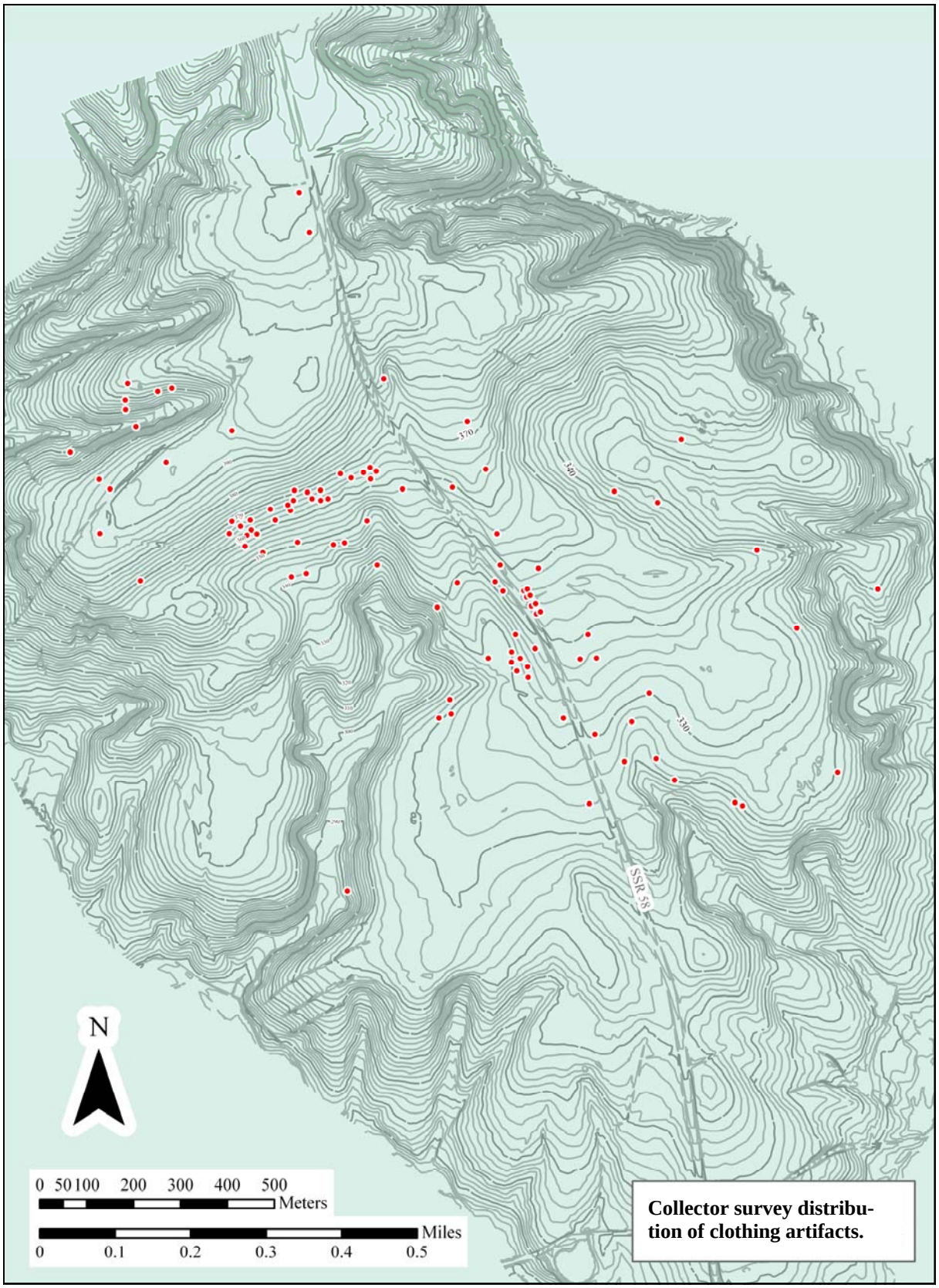


Figure 3.3 Collector survey distribution of clothing artifacts, revised.

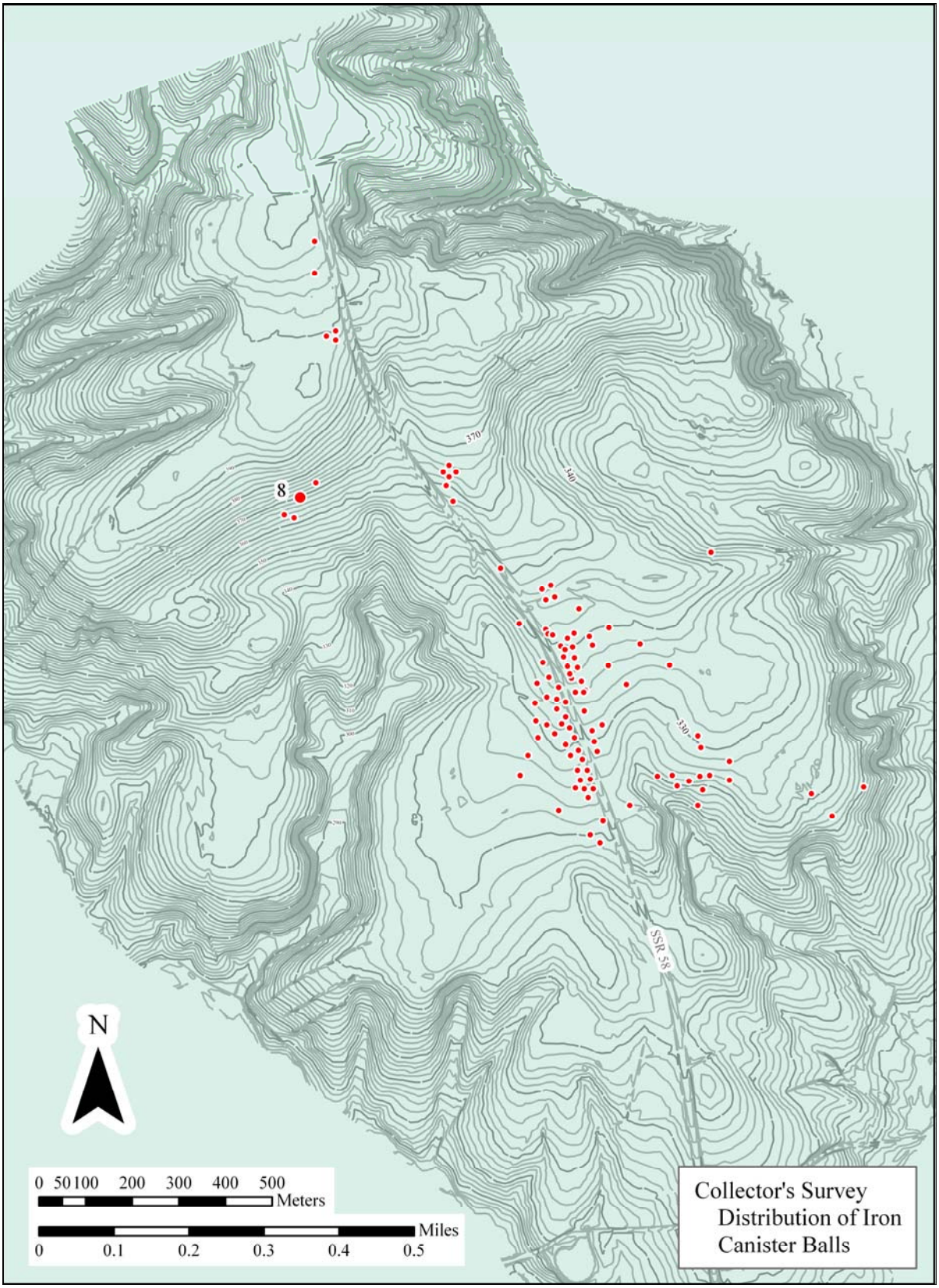


Figure 3.4 Collector survey distribution of iron case shot balls, revised.

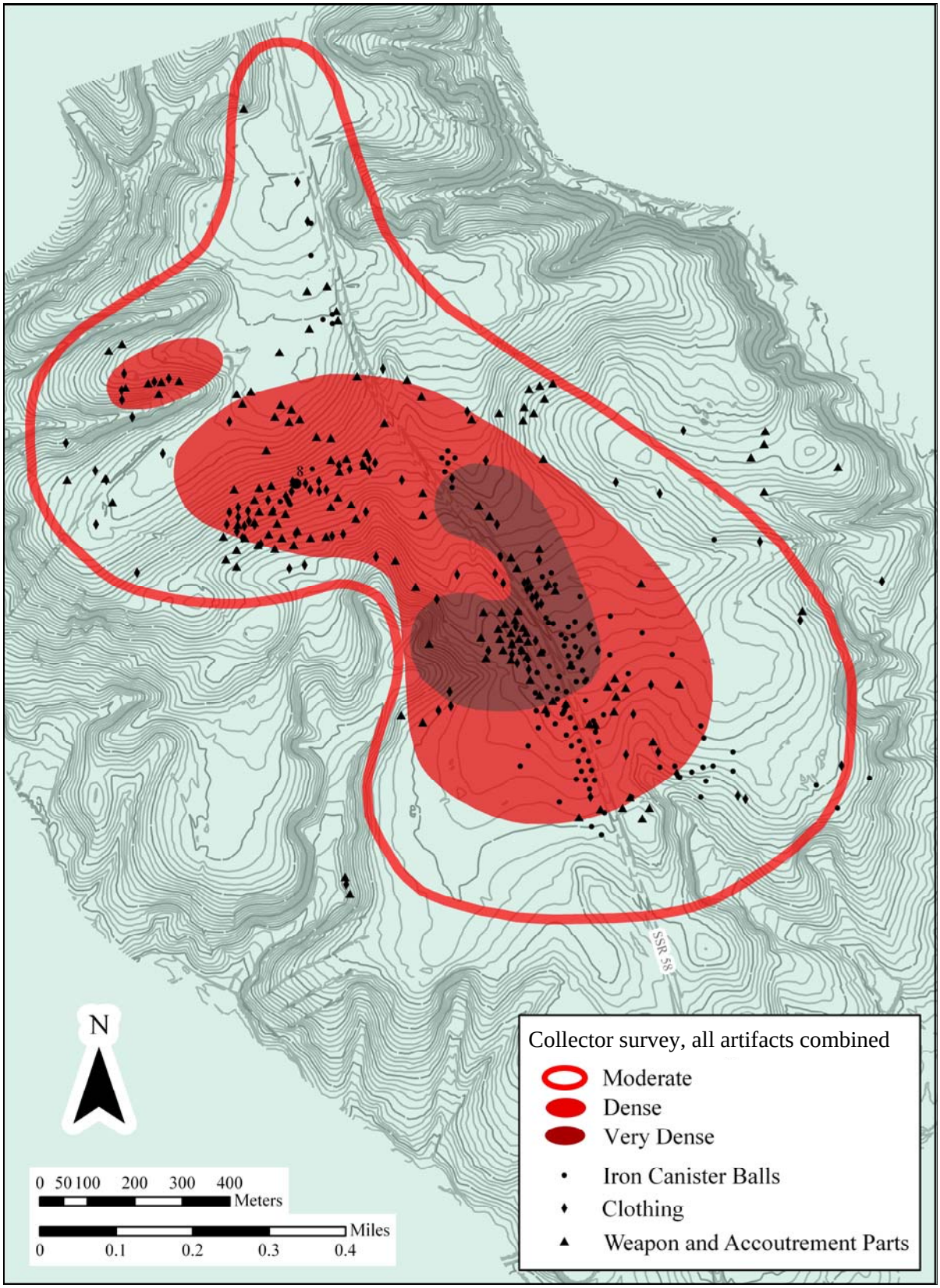


Figure 3.5 Collector survey distribution maps 3.1 through 3.4 combined.

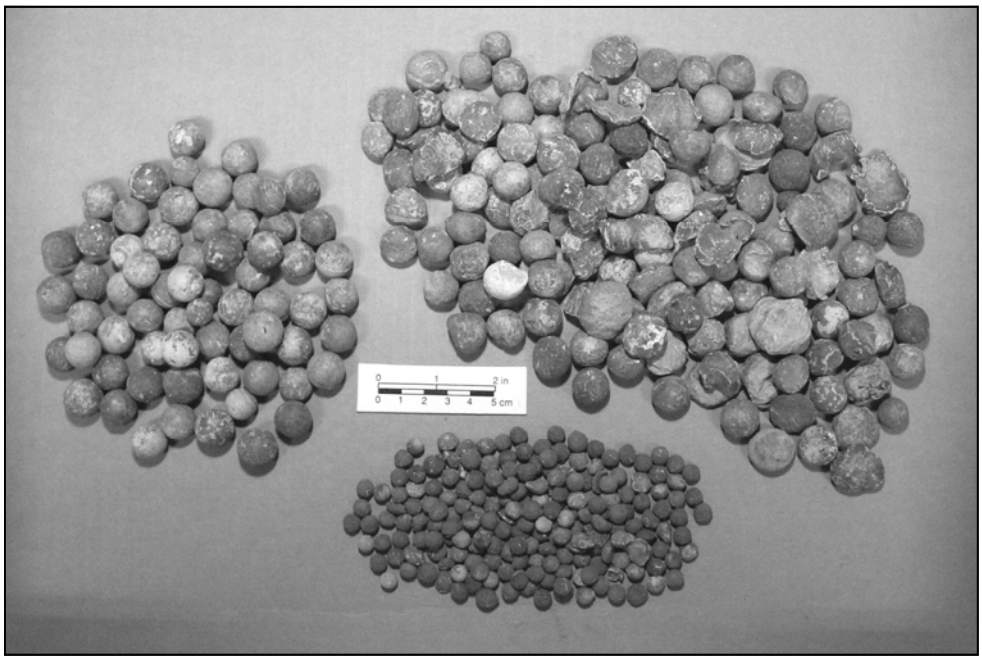


Figure 3.6 Lead shot from Collection # 16. Top left—unfired musket balls, top right—fired musket balls, bottom—buckshot.

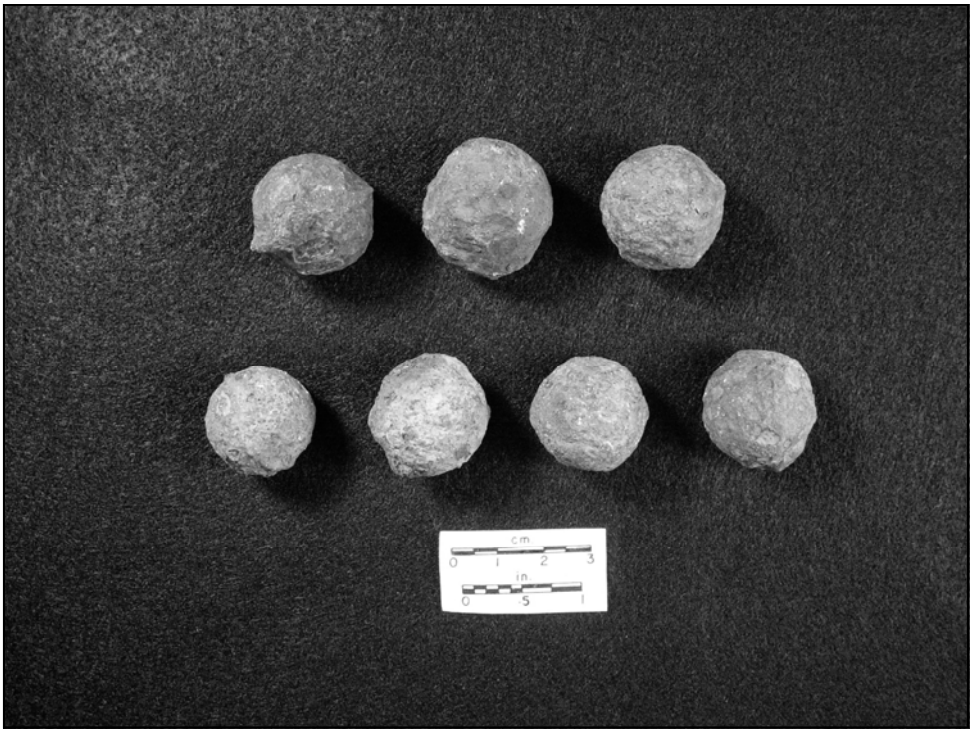


Figure 3.7 Iron case shot balls from Collection # 17.

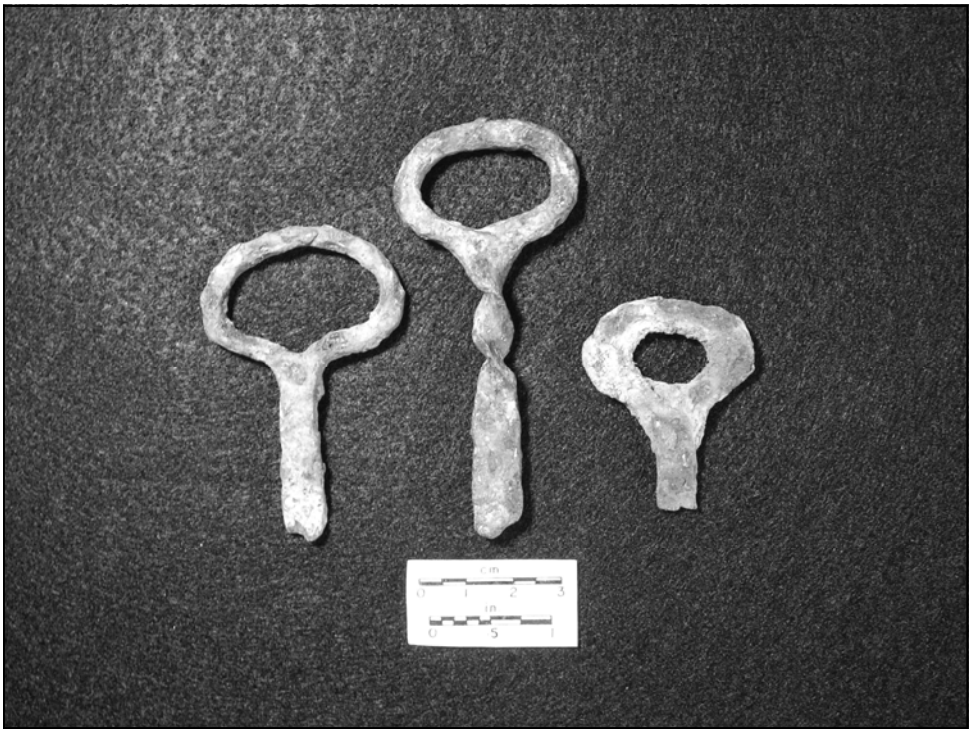


Figure 3.8 American musket turn screws from Collection # 17.

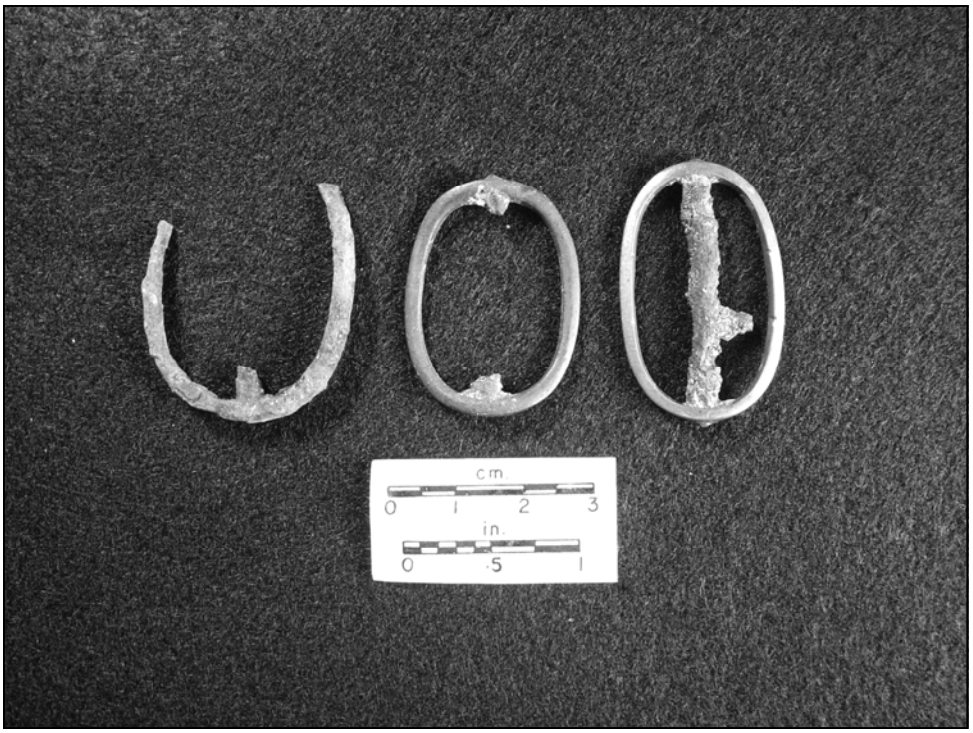


Figure 3.9 Knee buckles from Collection # 17.

Endnotes

[1]It is worth reiterating an important point about this subject made in the 2005 report: most archaeologists still appear to have a poor understanding of the scope and time depth of metal detecting on military sites. Questions such as, "Has this battlefield been metal detected?" or, "Will our work encourage metal detecting pot hunters?" might have been pertinent 35 or 40 years ago; they are naive today. With rare exceptions, all reasonably accessible battlefields, field fortifications and campsites in North America and the UK have been collected for several decades by many different individuals, and nearly all such sites have lost *most* of their "detectable" metallic artifacts. This condition extends to even the most obscure skirmishes and bivouacs, thanks to the rigorous historical research conducted by thousands of collectors. The exceptions are those few sites or portions of sites that have *both* legal protection and 24-hour security, and sites where the use of metal detectors is not practical (e.g. developed areas, filled areas or trash dumps). While the literature of archaeological metal detecting on military sites is growing, most reports of such work fail to address or even mention the "missing collections" that were removed years or decades before any archaeological effort was undertaken. It is not surprising, then, that few archaeologists have recognized the collector community as a resource that can and should be carefully tapped for information. A remarkable overview of battlefield relic collecting as it was in its heyday can be found in Stephen Sylvia and Michael O'Donnell, *A History of American Civil War Relics* (Orange, Virginia: Moss Pulications,1979).

[2]There was considerable variation among the interviews and the results, largely dictated by the kinds of information offered by the informant. In any case, all collectors recorded to date have shown great enthusiasm for both the battlefield preservation project and the archaeological project, in spite of the fact that the public effort has put an end to artifact digging on site. Only two collectors who were contacted ultimately did not follow through with formal recording. Four collectors (#'s 1, 2, 16 and 17) insisted on anonymity, but were otherwise entirely forthcoming, and two of them (#'s 1 and 2) donated their entire, intact collections to the project. In contrast, at least one of the large collections previously documented has since been sold and dispersed.

[3]The first two-digit element in the catalog code indicates a discrete collection (an individual collector, a bounded metal detector sample area, etc.). The second, three digit element indicates a provenience within the collection (an artifact findspot, or a described general provenience), while the last, three digit element indicates artifacts within the provenience.

CHAPTER 4. THE METAL DETECTOR SURVEY METHODS AND RESULTS

Introduction

The primary focus of this project has been an intensive, controlled metal detecting effort over as much of the battlefield as possible. The original management recommendations provided to PCF in 2000 suggested that "A 100%, piece-plotted metal detector collection should be made over the entire easement tract," in order to secure whatever artifact data remained before it, too, was removed by collectors (Legg 2000). A small sample (8,100 square meters) (two acres) was formally collected in 1998. The results suggested that a useful level of data was still present (Legg, Smith and Wilson 2005:75-80,83-85). The 2001-2005 Camden Battlefield research conducted under the ABPP grants concentrated on the Collector Survey program, but included a fairly substantial metal detecting component as well (Legg, Smith and Wilson 2005). That work involved thorough metal detector coverage of some 26,900 square meters (6.24 acres), considerably more than the promised 16,000 square meters (four acres), but still a minor sample of the entire battlefield. The combined 1998-2005 coverage of 35,000 square meters (8.64 acres) was still too small a sample, especially for providing information about specific battle episodes. The ABPP projects were intended, however, as something of a feasibility test rather than a sample sufficient to aid in interpretation. The results of these previous efforts indicated that a large-scale metal detector collection would indeed yield important interpretive data, and to that end the present work was undertaken.[1]

This project, funded as a SAT Camden Battlefield project, proposed coverage of at least an additional six acres (24,281 square meters). In the event, we covered 24 acres or 97,124 square meters. Combined coverage for all archaeological metal detecting within mapped areas is now 32 acres (129,499 square meters).

In addition we also covered 9,479 meters of firebreaks during this project. At a conservative estimate, all firebreaks were over two meters wide, except firebreak 41 within the DAR park, which was approximately a meter wide. However, assuming a two meter width (most were wider than two meters), estimated firebreak coverage included at least another 18,000 square meters. Total combined survey zones and firebreak coverage of the battlefield is now at 148,457 square meters (36.68 acres). This was substantially more than proposed, however, the controlled burns (see below) offered an unprecedented opportunity and we felt it imperative that to cover as much ground as possible. Overall, this is still a small portion of the battlefield, but we believe it sufficient to substantially define and characterize the battle on the present landscape (Chapter 5).

Field Methods

As in the case of the ABPP metal detector project, the SAT coverage was originally intended to consist of standard (20x100 meter) sample areas widely distributed over the property (Figure 1.3). Like the previous project, we quickly abandoned the projected distribution of standard sample areas, and for the same reason - concurrent with the archaeological field work, PCF was engaged in landscape management and restoration activities. These tasks included

hand-thinning of trees and brush, bush-hogging, mowing, cutting firebreaks, and controlled burning, all activities which created ideal metal detecting conditions, but which also exposed the same areas to unauthorized collecting. There was ultimately far more area "exposed" than we could cover. Choice of collection areas was often reactive. That is, coverage was added in a question-oriented fashion (e.g., "Does this artifact concentration continue to the south and east?"). In addition to area coverage, we detected firebreaks cut by PCF to contain controlled burns. It will be seen below that, in spite of the non stratified nature of our coverage, we managed to "box in" the primary concentration of battle material with areas of much lower density. Figures 4.1 and 4.2 illustrate area coverage and firebreak coverage, with provenience numbers. Appendix I provides a description of each provenience number. There was no minimum or maximum extent for either areas or firebreaks, but we regularly broke them up into new provenience numbers for convenience of reference. The collection areas were bounded as needed with flagging tape or pin flags, and were numbered in the same provenience sequence as earlier Camden collections. Numbers 21-37, 49-59, 70-72, and 74-78 were assigned to collection areas, while various segments of firebreaks were assigned numbers 38-48, 73 and 75. (Some numbers were either not used or used to catalog artifacts recovered outside of a formal collection area, see Appendix 1).

Metal detector coverage within each area was intended to be total-100% of the block (Figures 4.3, 4.4, 4.5, 4.6, 4.7). Often we not only covered an area once, completely, but covered them again at transects perpendicular to the first transects. There was no sampling within areas – within the flagged bounds of a given area, our *intent* was to recover *all* battle artifacts present. Sampling an area (e.g., detecting only every third lane, or alternate lanes) was not considered. These approaches, used by other archaeologists (Fox 1993:67), we feel only add unnecessary complexity to the fieldwork, and leave behind artifacts that might provide significant information. This latter consideration is particularly important on a heavily collected site like Camden, where only a thin remnant of the original material remains. Obviously, despite complete coverage, we can not claim that we have recovered every artifact within a given area. The degree of metal detector "recovery" is a subjective measure, dependant on many variables including the kinds of artifacts present, soil conditions, ground cover, the detectors used, and, most importantly, the relative experience of the operators. In this case, we sought to be as thorough as possible, and it can at least be said that it would have been difficult to find additional battle artifacts in any area we completed. Changed conditions, however (e.g. additional clearing of vegetation, or stripping of the humus), would probably yield another round of artifacts.

All metal detector readings were investigated, with the exception of diagnostic aluminum readings and very small iron readings, both of which were typically indicated by the detectors employed. Readings were excavated by the detector operator at the time of discovery. This is by far the most efficient recovery method, as only the operator can readily find the object, and it avoids cluttering the sample area with flags that mark, as often as not, unwanted trash. With exceptions such as nineteenth century coins and "M" class artifacts (below), non-battle artifacts were not collected. The retention of material such as shotgun shells, modern bullets, pull tabs, etc. would have doubled the size of our collection, and added nothing to our understanding of the battle. Artifacts to be retained were placed in zip lock bags marked with the sample area number and the sequentially assigned artifact number within the sample. The bags were collected and replaced with survey pin flags bearing the same number. After detecting in

Figure 4.1 Search area locations and numbers. For reference, Area 22 is the DAR park.

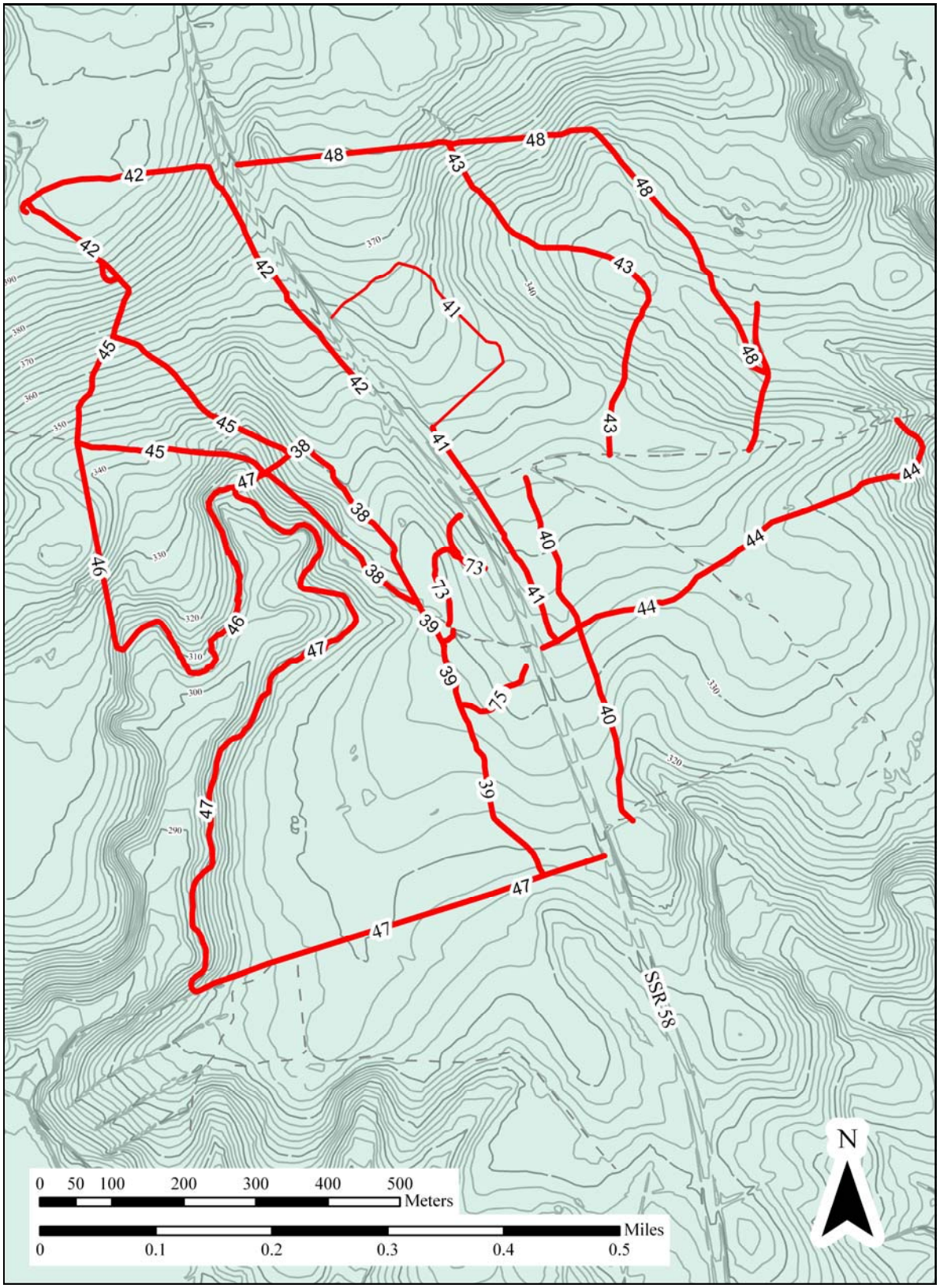


Figure 4.2 Firebreak locations and numbers. For reference, north firebreak 41 is within the DAR park.

a sample area was completed, the area bounds and artifact pin flags were mapped using a GPS instrument (Figure 4.5), ultimately resulting in the GIS artifact distribution maps in Figures 4.8 to 4.23. The pin flags were not removed until the GPS data was successfully downloaded and inventoried.

Figure 4.3 Metal detecting on east side of highway, Areas 30, 31, prior to controlled burn.

The primary metal detectors used for the SAT metal detector project were a Fisher 1270®, and a Tesoro Cibola®. Both devices were late-model detectors with excellent depth capability, detecting buckshot to a depth of about 9," and musket balls to more than 12." Our volunteers used a variety of detector brands and models, including Fisher 1266®, and White ® models.

Analysis Methods

Artifacts were returned to SCIAA for processing and analysis. Iron objects were washed with a toothbrush, sketched and described, and consigned to a base water solution to await conservation. Lead and lead alloy objects were washed, soaked briefly in a weak lye solution to remove soil staining, washed again, and dried. Copper alloy objects were simply washed and dried. Pewter objects were rinsed and painted with a dilute white glue solution until they were no longer friable. Dried artifacts were placed in fresh, archival zip lock bags marked with the catalog number. The catalog system is the same three-part code used for previous Camden battlefield work, and the functional class codes are also common to both projects (Legg, Smith and Wilson 2005: Appendix A). The first element in the catalog number is the collection (e.g. Area #34), the second part is the provenience within the collection (e.g., GPS artifact location #15), and the final number enumerates multiple objects, if any, within the provenience. The artifacts themselves are not marked with catalog numbers. In processing, a number of artifacts were identified as modern, most of them alloy buckshot. These items were discarded, and their numbers left vacant.

Figure 4.4 Metal detecting in Area 74 after bush hogging.

A total of 36 iron objects recovered during the SAT metal detecting have been conserved or are still in the conservation process, including all iron items that are certain battle artifacts. For most items this

Figure 4.5 Recording artifact location using GPS instrument, Area 20.

involved thorough reduction in electrolysis alternating with manual cleaning, followed by distilled water baths, boiling in distilled water, baking, and sealing with microcrystalline wax. A few fragile items lacking solid iron cores have been treated with baths and boiling in distilled water, baking, and sealing.

Information recorded in analysis varied depending on the sort of artifact under examination. The great majority of artifacts were lead shot, which are discussed in greater detail below. Iron case shot balls were both measured for diameter and weighed. Other kinds of artifacts were described as appropriate, including material, construction, condition, and any available historical or typological nomenclature, and usually at least one representative metric measurement.

Lead Shot Analysis

The overwhelming majority of battle artifacts consisted of fired and unfired spherical lead shot. These comprise an ammunition collection that may seem quite generic in terms of its interpretive value.[2] In fact, a careful and informed analysis can derive a great deal of information from such a collection. The immediate results of such an analysis are the individual ammunition descriptions found in the descriptive catalogs (Appendix II on CD). This data was, in turn, grouped into a number of significant subsets, and these were mapped onto the new two foot contour topographic base map of the Camden battlefield (below, Figures 4.11-4.23).

Figure 4.6 Archaeologist pointing to musket ball in situ, Area 35.

The most significant diagnostic characteristic of an excavated lead shot is its size. The diameter of the ball, either measured directly or projected, provides a fair idea of the caliber of the weapon for which it was made. The correct usages of the firearms terms “caliber” and “diameter” are rarely encountered in

Figure 4.7 Close-up of British musket side plate in situ, Area 59.

archaeological literature, but they are essential in any discussion of ammunition. "Caliber" refers to the diameter of the bore of a weapon, while the "diameter" of a projectile is its actual diameter (both expressed in hundredths of an inch). In muzzle-loading weapons, the diameter of a projectile is smaller than the caliber, while in breechloading weapons the projectile is usually slightly larger. Thus, for example, a .75 *caliber* musket ball for a British .75 caliber musket is typically about .685" or .690" in *diameter*. The difference between a muzzle-loading weapon's caliber and its diameter is its *windage*. In the 18th century, caliber was most often expressed using a cumbersome system of so many balls to the English pound (or the French *livre*), such that an "11 bore" gun had a caliber so that 11 balls of proper diameter weighed one pound (Hamilton 1976:125).

Unfired lead shot in the SAT collection were measured directly with calipers, to within thousandths of an inch. Special cases complicated this procedure. Some balls were cast in crudely cut molds, and were not nearly spherical – these specimens were described as such, with a range of representative measurements. Even well made balls were not measured on the mold seam, as the mold halves were seldom exactly aligned. Other cases noted in analysis were examples that were heavily corroded or exfoliated, and have thus lost diameter. All unfired shot were also weighed, and projected diameters (below) were calculated.

Fired balls are almost always somewhat distorted, if not completely mangled, and their diameters must be projected from their weights. Sivilich (1996) provides a reliable formula for converting the weight of specimens in grams to their diameters as spheres in hundredths of an inch (in the catalog these are the "p.d." values). Special considerations here were any factors that may cause the ball to be underweight for its intended diameter – whittling, pig or rodent gnawing, melting, tearing, severe corrosion, etc. Pewter balls weigh much less than lead balls of the same diameter and the Sivilich formula cannot be applied to them. Fortunately pewter balls are almost absent from the Camden collections, and in any case they have a distinctive gray, friable surface very unlike lead.

Other diagnostic details were noted in the analysis of fired shot. Often preserved on the surface of a fired ball are indications of loading and firing, although any or all of these marks were subject to being erased by the impact of the ball. Smoothbore muskets and carbines were equipped with steel ramrods, which sometimes imparted a distinct concave or flat dent on the ball. These weapons were normally loaded with paper cartridges, however, and the balls were thus protected from ramrod dents. When fired, a smoothbore ball with normal windage (e.g.,

a .640" ball in a .69 caliber bore) bounced and scuffed its way up the barrel, and was typically scarred with one or more cylindrical scrape marks from contact with the bore. Musket balls fired in buck and ball loads sometimes show small dents from the buckshot; the buckshot from these loads often show dents or facets from the other buck shot as well as the musket ball, in addition to bore marks. Rifles were loaded without a cartridge, with a tight-fitting ball with little or no windage. To ensure that the ball engaged the rifling thoroughly, it was usually *patched*. This involved placing the ball on a small, round patch of linen at the muzzle, such that the ball was completely enveloped in the patch when it was rammed. The loading and firing of a patched rifle ball imparted a series of evenly spaced, fabric weave impressions around the circumference of the ball, each corresponding to one of the lands of the rifling. Balls fired in unrifled "rifles" were usually patched, and may also show traces of weave. Un-patched rifle balls show scrapes or flats corresponding to the lands. The evidence for rifling and patching is often faint, and sometimes obliterated by impact. The fired ball must be examined under magnification, and a typical "confirmation" consists of one or two faint traces of fabric weave somewhere on the non-impact surface.

The impact surface of a fired ball records an impression of the material that it struck, and this detail, where discerned, was noted in analysis. The two most common and most readily identified impressions are wood and soil – most Camden specimens struck one or both surfaces. Wood impact surfaces usually have plain impressions of splintered wood grain. Soil impacts typically impart a mass of abrasions radiating away from the leading face of the ball at impact, and the impact face often retains grains of sand embedded in the lead. A few Camden balls exhibited fabric weave on its impact face – an impression imparted not by patching, but as the result of striking a cloth surface, perhaps the victim's clothing.

Several other diagnostic characteristics were recorded as seen. Lead shot were often made more uniform after casting by a process of tumbling or rolling. This involved placing a large quantity of new balls in a keg or bag, which was then rolled or agitated for an extended period. This smoothed the various surface irregularities, including the sprue mark and the mold seam, and imparted a finely dimpled surface comprised of tiny dents. Regular British musket balls are usually rolled, often so thoroughly that the mold seam cannot be detected (e.g. Legg, Smith and Wilson 2005:100). It may be that .75 caliber musket balls that are *not* rolled are not British. Rolling is often detectable on fired as well as unfired balls.

Unfired balls that were discarded or lost with their paper cartridges intact often exhibit a black crust or stain remaining from the powder charge. In some cases the mark is a well-defined, round patch where the bottom of the ball rested on the charge, while more typically the mark is less regular, reflecting the rapid deterioration of the paper cartridge (e.g. Legg, Smith and Wilson 2005:Figure 6.4B). Some powder marks are readily washed away in processing, leaving only a localized corroded area on the surface of the ball.

Lead shot may exhibit a wide variety of damage, both deliberate and incidental, inflicted both before and after deposition. Deliberate mutilation can include whittling and/or battering, either to no particular end, or to create a useful object. Balls originally embedded in trees are sometimes deeply slashed by axe or saw, and balls from former or current plowed fields often exhibit cuts and scrapes from plows, hoes, or discs. At Camden, a number of balls were recov-

ered that were deeply abraded by sand and gravel; these were found in or near the original road bed, and represent shot exposed to road traffic for many years. One of the most common mutilations is chewing, either by hogs or rodents. Lead shot that have been chewed (and digested) by pigs usually retain their full weight, but have the appearance of used chewing gum. Examples that have been chewed by rodents exhibit patches of very fine tooth striations where the animal has actually consumed a portion of the ball - these balls can be substantially underweight. Finally, some balls are no longer even recognizable as such, particularly those that have melted, typically in campfires or forest fires. Finds of heavily patinated melted lead were classed as battle artifacts.

Results

Figures 4.8 through 4.23 present the essential results of the SAT metal detecting project, combined with data from the more modest 1998 and ABPP efforts. The intensive analysis of the material (above) allowed us to group the artifacts into a number of subsets, which were then mapped individually and in certain combinations. The expectation, of course, was that meaningful patterns might emerge in certain subsets that are not apparent in the overall distribution of battle artifacts (Figure 4.23). The artifact distributions were combined with the historical information (Chapter 2) and the Collector Survey information (Chapter 3) to yield the interpretations presented in Chapter 5. Below, the rationale and definitions for the various artifact subsets are discussed.

Figure 4.8: Distribution of clothing artifacts

This figure shows the distribution of all clothing class artifacts (buttons, buckles) which are certain or probable battle artifacts. These 13 artifacts were too few to suggest any meaningful patterns by themselves, but their distribution essentially matches the overall battle artifact cluster (Figure 4.23). The clothing artifacts are individually numbered and identified on Figure 4.8.

Figure 4.9: Distribution of arms-related artifacts

This figure shows the distribution of all small arms and arms accoutrement artifacts other than ammunition, including objects such as gun parts, scabbard hardware, musket tools, and cartridge box hardware. Like the clothing artifacts, these 29 items were too few to suggest patterns, but they did agree with the overall artifact distribution. The arms artifacts are a diverse group, and they are individually identified with Figure 4.9.

Figure 4.10: Distribution of artillery artifacts

This figure shows the distribution artillery-related artifacts, including 10 iron case shot, one lead case shot, and one iron wire handle that is thought to be from a case shot. While the artillery sample is small, the distribution agrees well with the Collector Survey artillery data (Figure 3.4). There is much potentially significant variation among the iron case shot, and they are individually numbered and identified in Figure 4.10. One Collector Survey case shot is in-

Figure 4.8: Clothing Artifacts

1. 22 006 001: Button, tombac.
2. 22 062 001: Shoe buckle tongue, brass.
3. 22 122 001: Shoe or knee buckle frame fragment, brass.
4. 26 027 001: Button back, tombac.
5. 29 005 001: Button fragment, tombac.
6. 31 041 001: Shoe or knee buckle frame fragment, brass.
7. 31 071 001: Button remnant, pewter, US type.
8. 34 003 001: Button remnant, pewter, US type.
9. 34 050 001: Button remnant, pewter, US type.
10. 40 050 001: Button, brass.
11. 59 011 001: Shoe or knee buckle frame fragment, brass.
12. 70 004 001: Button, pewter, “USA” pattern.
13. 71 004 001: Shoe buckle, brass, complete.

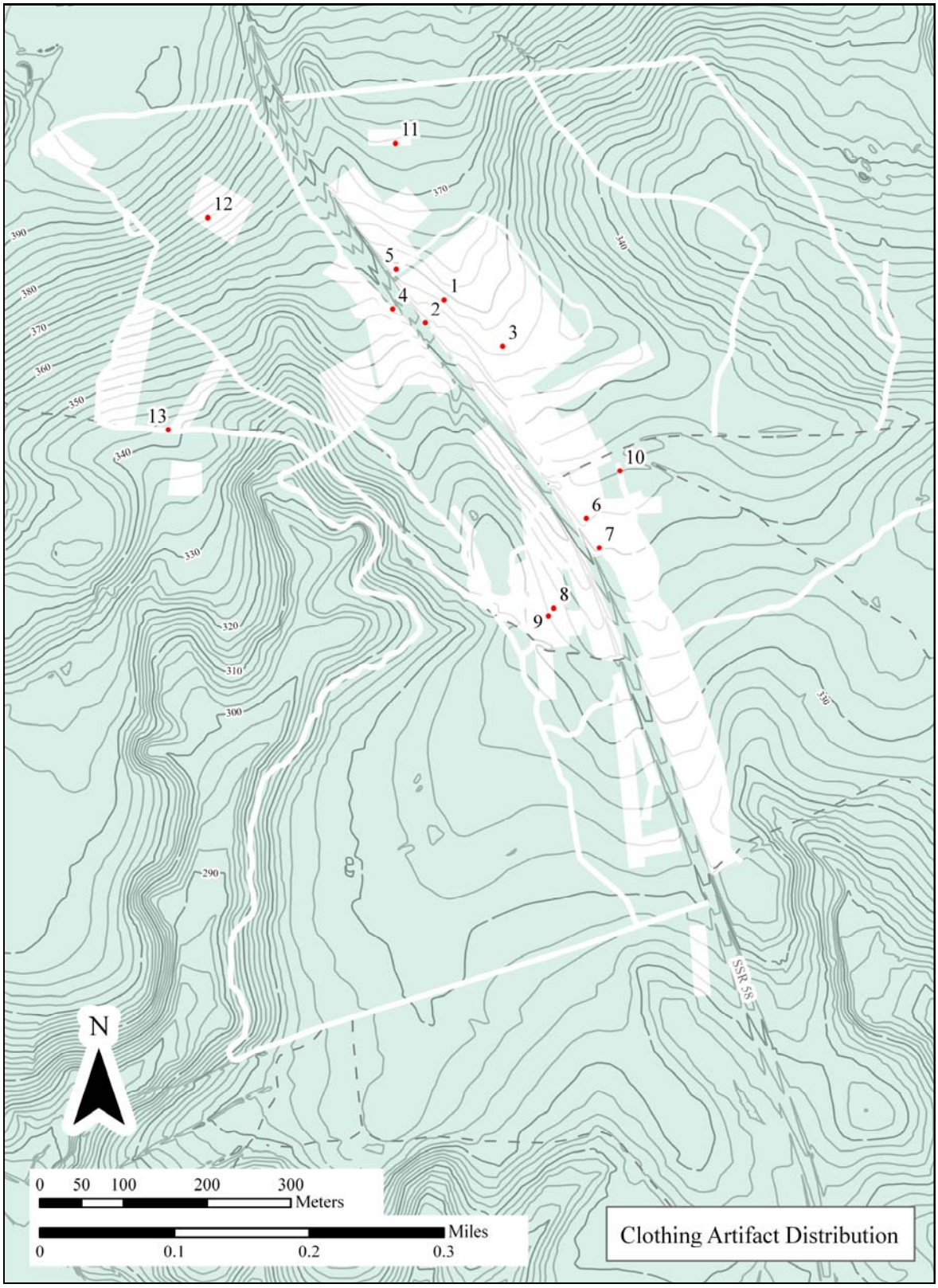


Figure 4.8 Distribution of clothing related artifacts.

Figure 4.9: Arms-Related Artifacts

1. 20 037 001: Musket trigger guard fragment, iron, French.
2. 22 013 001: Bayonet scabbard frog stud, brass.
3. 22 018 001: Musket turnscrew, US, blade only.
4. 22 033 001: Musket turnscrew made from a wrought spike.
5. 22 048 001,002: Musket band springs, French.
6. 22 049 001: Cartridge box finial, iron.
7. 22 078 001: Powder horn filler cap, brass.
8. 22 089 001: Musket cleaning worm, iron.
9. 22 096 001: Musket pan brush shank, sheet iron.
10. 22 105 001: Gun barrel fragment.
11. 22 186 001: Cartridge box turn latch, iron, US.
12. 22 275 001: Musket flint holder, lead.
13. 25 003 001: Musket side plate fragment, iron, French.
14. 30 027 001: Bayonet scabbard throat and frog stud, iron.
15. 30 087 001: Bayonet scabbard frog stud, brass.
16. 31 055 001: Musket trigger guard fragment, brass, British.
17. 33 001 001: Musket side plate fragment, brass, British.
18. 33 002 001: Musket side plate fragment, brass, British.
19. 34 065 001: Bayonet scabbard tip, brass, British.
20. 37 007 001: Musket flint holder fragment, lead.
21. 38 018 001: Musket barrel shim, lead.
22. 39 001 001: Musket stock pin, brass.
23. 47 019 001: Musket flint holder fragment, lead.
24. 51 001 001: Musket pan brush chain, brass.
25. 51 008 001: Musket trigger guard fragment, iron, French.
26. 51 022 001: Musket nose cap, brass, British.
27. 54 013 001: Bayonet scabbard frog stud, brass.
28. 59 005 001: Musket side plate, brass, British.
29. 78 005 001: Musket trigger guard fragment, brass, British.

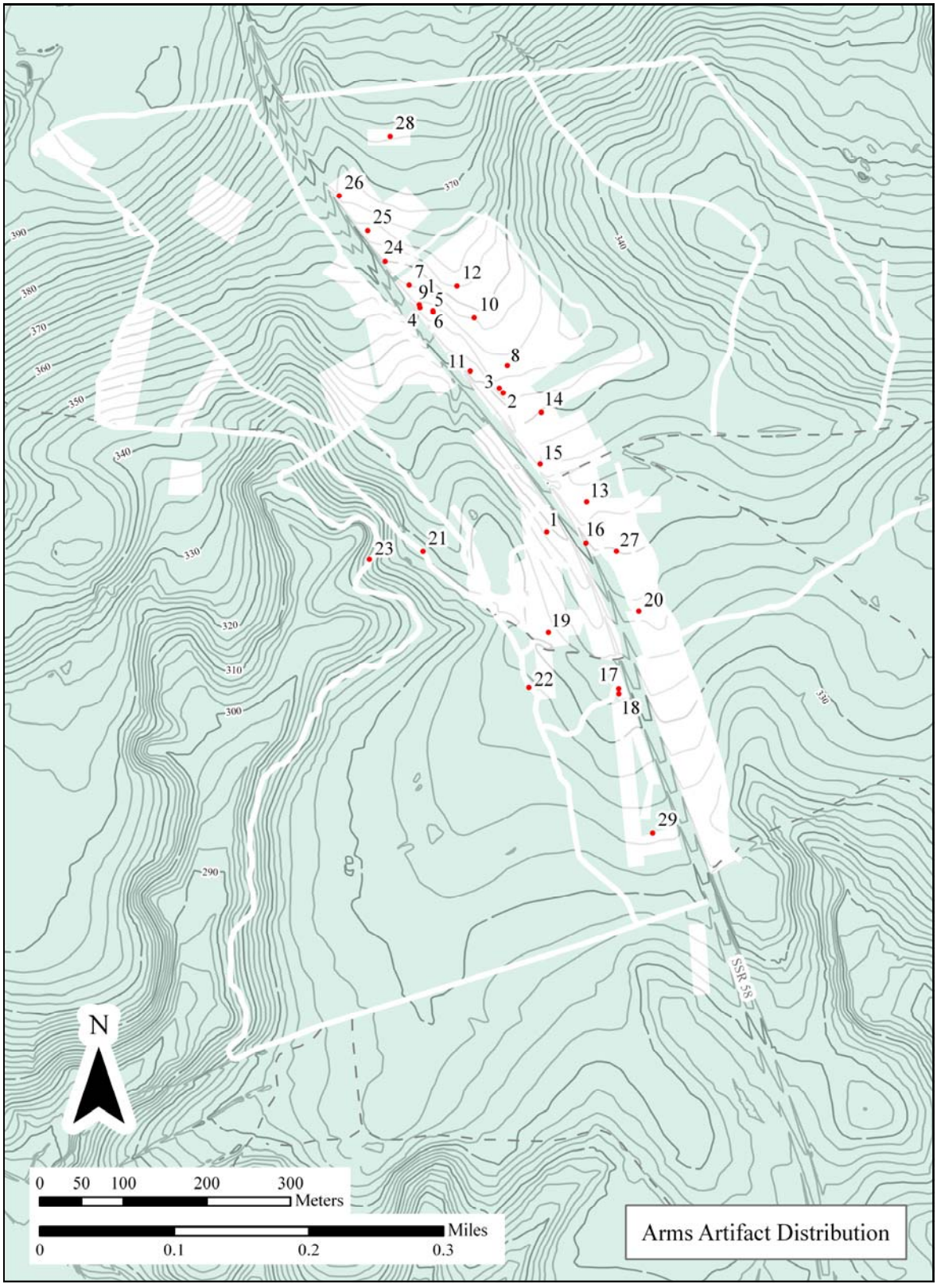


Figure 4.9 Distribution of arms-related artifacts.

Figure 4.10: Artillery Artifacts

1. 01 023 001: Case shot ball, iron, 56.7g, single sprue.
2. 25 001 001: Case shot ball, iron, 50.5g, double (gang mold) sprue.
3. 25 010 001: Case shot ball, iron, 43.8g, double (gang mold) sprue.
4. 26 010 001: Case shot ball, iron, 42.9g, double (gang mold) sprue.
5. 26 037 001: Case shot ball, iron, 45.1g, double (gang mold) sprue.
6. 27 001 001: Case shot ball, iron, 52.3g, single sprue.
7. 29 001 001: Case shot ball, iron, 64.0g, single sprue.
8. 30 167 001: Case shot ball, iron, 45.9g, double (gang mold) sprue.
9. 40 005 001: Case shot ball, iron, 38.8g (badly pitted), double (gang mold) sprue.
10. 73 006 001: Case shot ball, iron, 54.1g, single sprue.
11. 78 001 001: Case shot ball, iron, 47.4g, single sprue.
12. 34 067 001: Case shot ball, lead, 17.1g, p.d. .575."
13. 30 052 001: Case shot handle (?), iron wire.

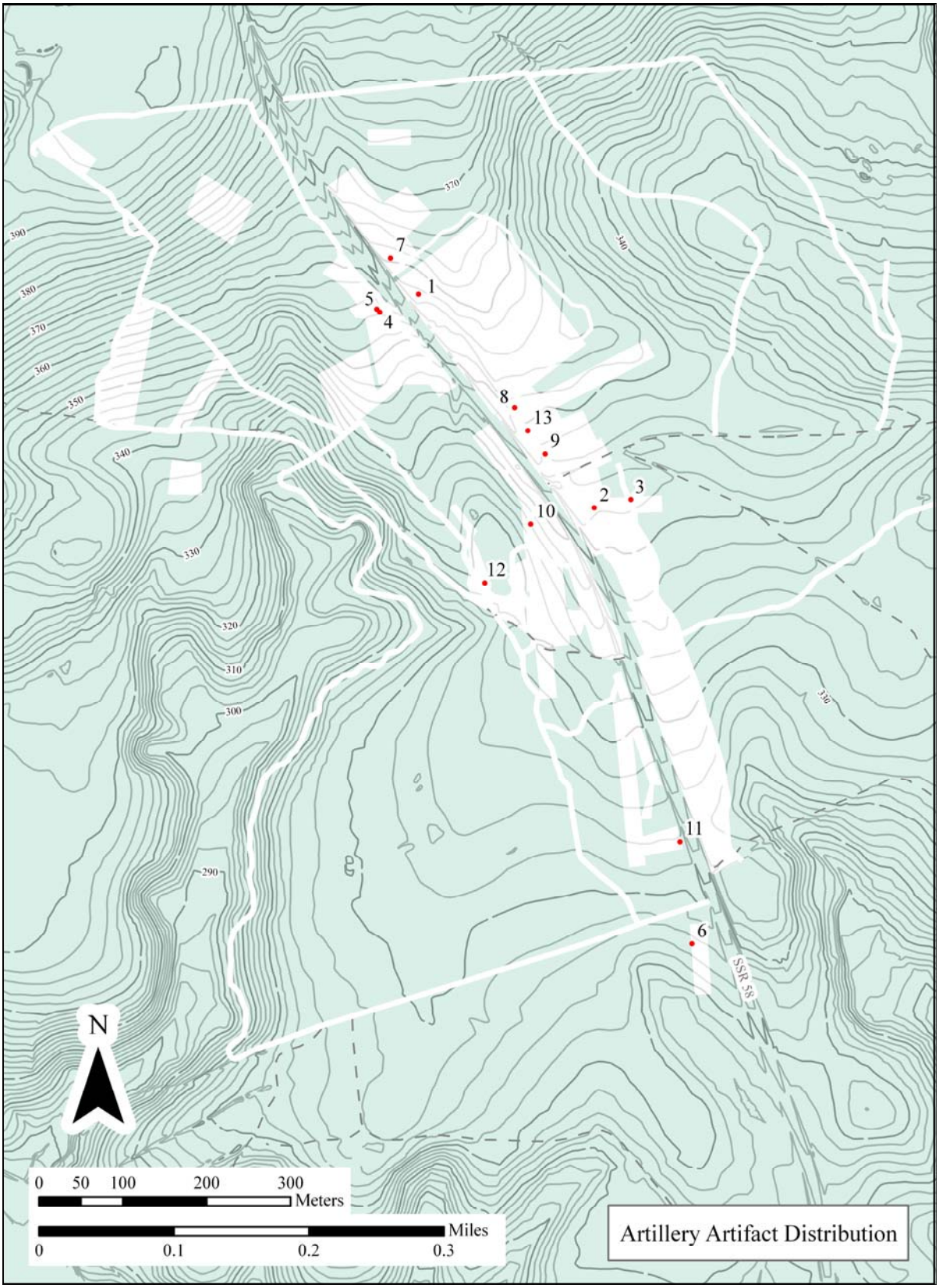


Figure 4.10 Distribution of artillery artifacts.

cluded in this distribution, as its precise findspot was known, and the particular specimen (unusually) was in hand.

The British artillery fielded two, three-pounders and four, six-pounders, while the Americans appear to have employed (and lost) four, six-pounders, two, three-pounders, and two, two-pounders. How many pieces were actually fired during the battle is not known. In addition to the American guns, the British captured "fixed ammunition for six pounders, 160; ditto for three pounders, 520…" (Tarleton 1787:139). This "fixed ammunition" probably included both solid shot (cannon ball) cartridges, and canister cartridges, then called "case shot."[3] Solid shot would have been a very ineffective round on a wooded, short-range battlefield like Camden (unless fired at the British in column), and indeed no examples are known to have been recovered. Case shot was probably the only round employed. A standard British six-pounder case shot of the Revolutionary War period consisted of a sheet iron can (or "case") containing 56, 1.5 ounce cast iron balls. The can was attached with copper tacks to a wooden base or sabot, which in turn was secured to a cylindrical flannel powder bag – the whole comprised a "fixed" round, or cartridge (Caruana 1979:3).[4] The Camden battlefield collections also include small numbers of lead case shot balls, which were simply musket balls; these projectiles are readily distinguished from balls fired from muskets by the deep scallops and flats that mark their surfaces. The SAT survey yielded a single example of a lead case shot ball, and it was an unusually small ball at 17.1g, or about .575."[5]

Figure 4.11: Distribution of unfired .69 caliber musket balls and cartridges

This figure shows the distribution of all unfired lead shot that are probably musket balls for .69 caliber French muskets. Broadly speaking, .69 caliber French muskets can be considered the standard American infantry arm at the Battle of Camden and in the Southern Campaign. In 1777, large quantities of French muskets began arriving in American ports as covert (and later overt) aid to the Revolution. The French muskets were of many different (but essentially similar) year models, and all were about .69 caliber. They soon became the regulation weapon of the Continental infantry, and they were available in sufficient numbers to be the standard infantry weapon (Peterson 1968:36-38; Neumann 2002; Moore 1967:63, 93-99).

There is also a good chance that the Loyalist militia fighting on the British left at Camden were armed at least partially with captured French muskets. Lambert (1987:121) indicates that there was a serious shortage of British muskets available for issue to Southern loyalists in 1780. Although many French muskets were captured by the British when Charleston fell, a magazine explosion destroyed an unknown number and possibly the American store of cartridges (Borick 2003:303). Nevertheless, there is ample documentation for the British issue of French muskets after the battle of Camden, and it may be that the North Carolina and South Carolina Loyalist militia that mustered in support of Cornwallis were thus armed with captured muskets (see George Wray papers, William Clements Library, for examples of French Muskets being issued to Loyalist militia).

The diameter range for this group is .630" to .665." It appears from field recoveries at Camden and elsewhere that a standard ball size of about .635" to .640" was intended (Legg,

Smith and Wilson 2005:99, 100, 126-132).[6] There were 24 examples of these musket balls recovered, in addition to eight specimens that were recovered with buckshot *in situ*, indicating a buck and ball cartridge. All buck and ball recoveries were from the northern portion of the battlefield, in areas which were never subjected to intensive agriculture. Further south, buck and ball cartridges are represented by large numbers of unfired buckshot (Figure 4.12), but they are not associated with particular musket balls. Like other larger projectiles on the battlefield, the unfired .69 caliber musket balls are strongly underrepresented in our collection simply because they have always been relatively easy to detect.

Figure 4.12: Distribution of unfired buckshot, .250" to .320" in diameter

This figure shows the distribution of unfired buckshot ranging in diameter from .250" to .320," with the great majority of examples falling between .280" and 310."[7] This is the smaller of two diameter ranges encountered on the battlefield, the larger being .320" to .360" in diameter (Figure 4.14). 316 examples were recovered, from 277 different locations.

It is reasonable to assume that these buckshot are from American buck and ball cartridges for .69 caliber French muskets. In October 1777, General Washington ordered that "Buckshot are to be put into all cartridges which shall hereafter be made," although he did not specify the quantity (Peterson 1968: 60, 61). It is clear from artifact evidence, however, that the regulation American cartridge included a musket ball and three buckshot of about .300," the buckshot placed in a triangular array on top of the musket ball (Peterson 1968: 60,61; Legg, Smith and Wilson 2005:101-103, 126-132). An unknown but heavy proportion of .69 caliber musket cartridges carried into the Battle of Camden included buckshot in addition to the musket ball, and buckshot are the most abundant single artifact type from the site. They provide the best indication we have of American fighting positions during the battle. As mentioned above, an unknown number of British Loyalists possibly carried captured French muskets and if so, it is reasonable to assume that they might have used captured cartridges, meaning that they too fired buck and ball (on the other hand see previous page, Charleston magazine explosion). This might explain a peculiarity in the distribution of fired and unfired "American" buckshot on the British left/American right in Figure 4.12. There, unfired buckshot have been recovered in what should be the initial position of the Loyalist militia, while a dense scatter of fired buckshot was located behind the American right (Figure 4.18).

Figure 4.13: Distribution of unfired .75 caliber musket balls

This figure shows the distribution of all unfired lead shot that are probably musket balls for .75 caliber British muskets. Ten examples were recovered from 10 different locations. British infantry used the .75 caliber, brass-mounted "Long Land Pattern" and "Short Land Pattern" flintlock muskets, both improved models of the so-called "Brown Bess" musket introduced in the early eighteenth century (Peterson 1968:27-29; Darling 1970; Neumann 2001). American forces used British muskets and American-made copies thereof early in the War, and it is possible that some militia at Camden were still armed with them. However, nearly all .75 caliber musket balls in Camden Battlefield collections are of a distinctive British type, well made and quite spherical, and thoroughly rolled (tumbled) to remove virtually all signs of the sprue scar and mold seam. These have a fairly tight diameter range of about .680" to .695," with an aver-

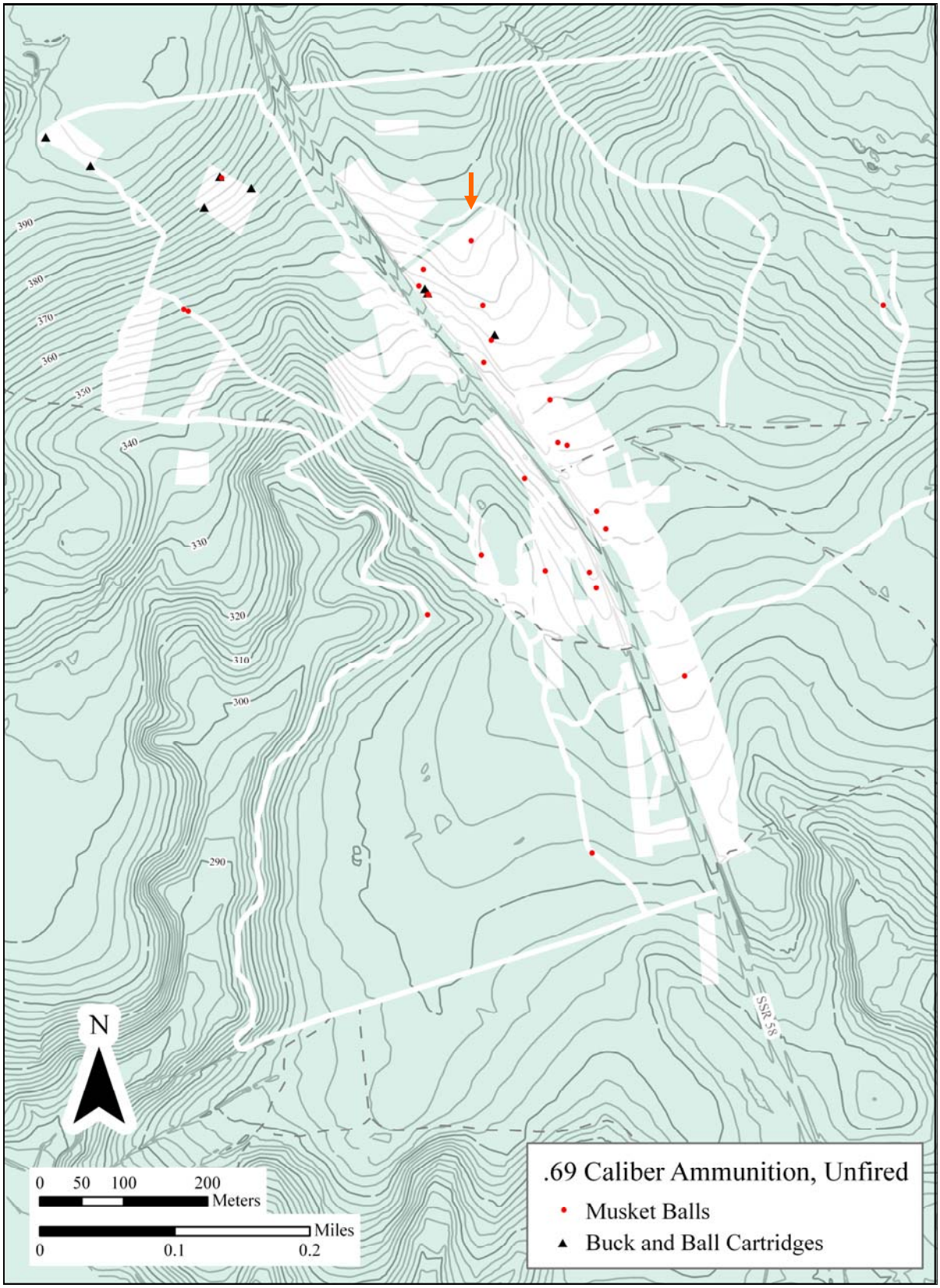


Figure 4.11 Distribution of unfired .69 caliber musket balls and buck and ball cartridges.

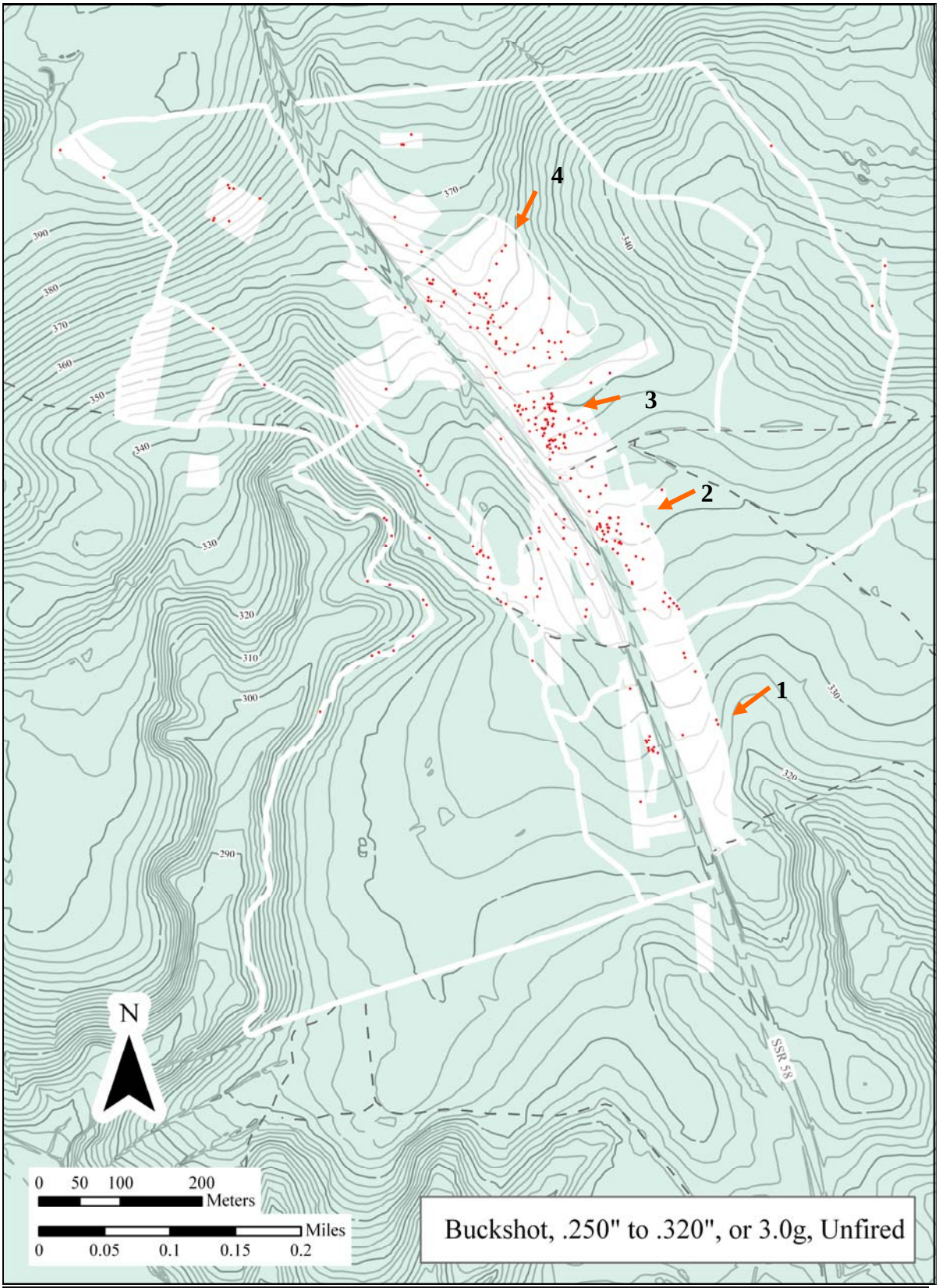


Figure 4.12 Distribution of unfired .250", .320" buckshot. Red arrows for Chapter 5 interpretations.

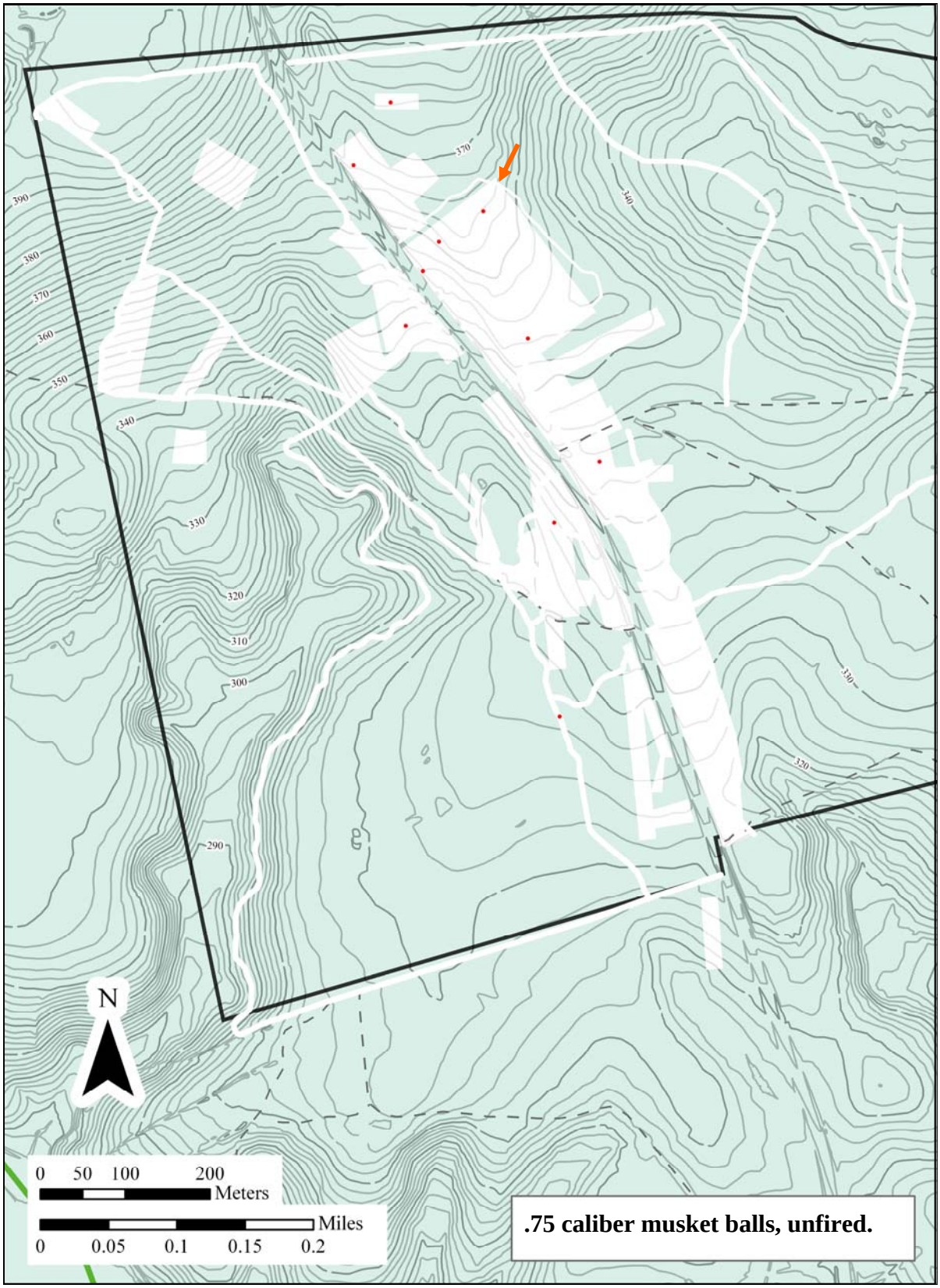


Figure 4.13 Distribution of unfired .75 caliber musket balls. Red arrow for Chapter 5 interpretation.

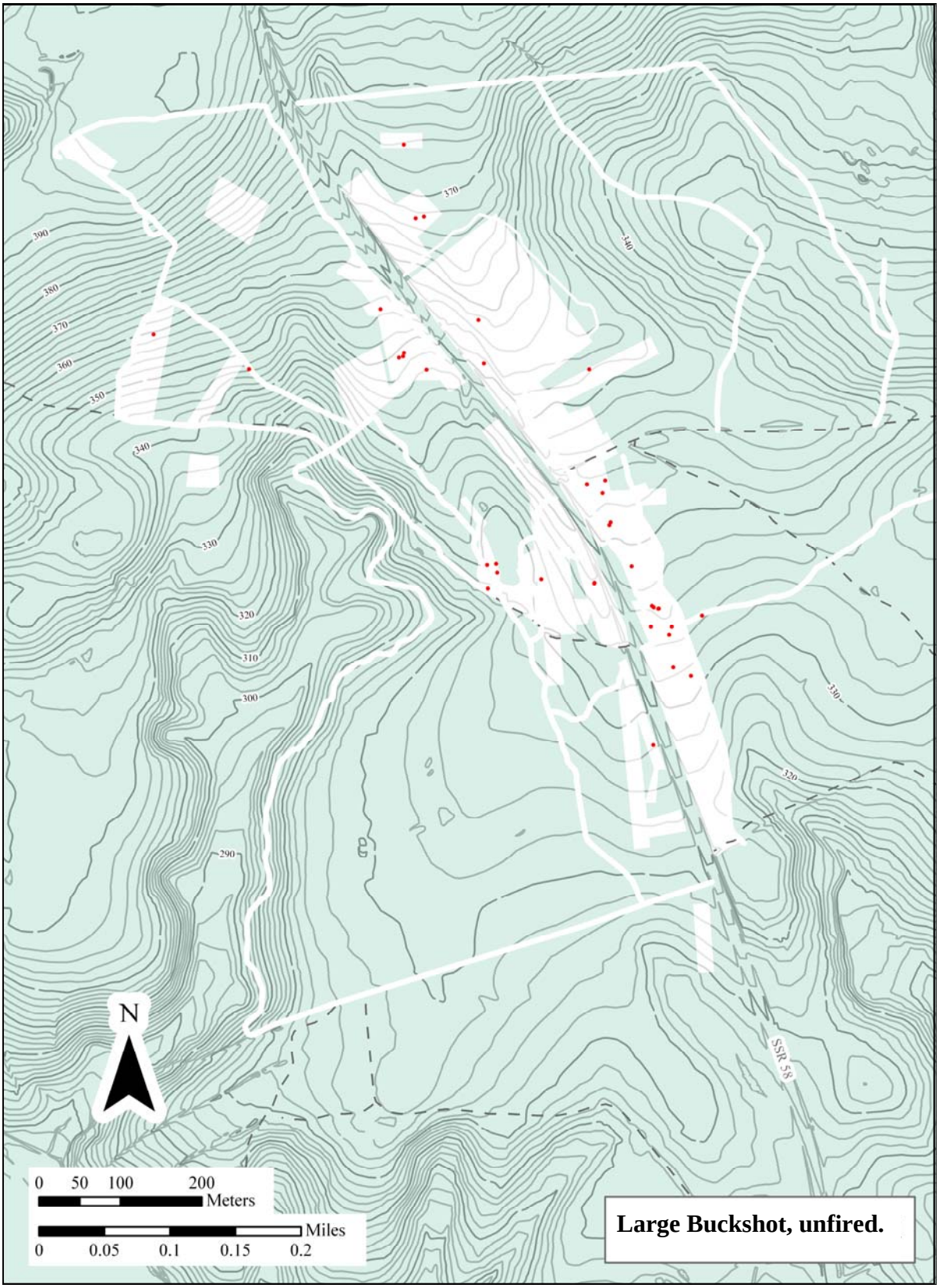


Figure 4.14 Distribution of unfired buckshot .320 to .360 in diameter.

age of about .690," and typical weight is about 30.5 grams. These are slightly smaller on average than the large sample of musket balls from "two sites purely British of Revolutionary date" measured by Calver and Bolton (1950:80), which yielded a minimum diameter of .687," and an average of .694."

The unfired .75 caliber musket balls should be our best indication of the actual British unit locations. Collector #17, for example, reported a rough line of unfired .75 caliber balls where we depict the British left in Figure 5.1. Unfortunately these very large shot are easily detected, and very few remained to be recovered archaeologically. Unlike American cartridges, British cartridges generally included no smaller shot that might be diagnostic of the missing musket ball, and we are left with very slim evidence for the British fighting positions.[8]

Figure 4.14: Distribution of unfired buckshot, .320" to .360" in diameter

This figure shows the distribution of unfired lead shot ranging in size from .320" to .360." Forty examples were recovered from 37 different locations. Most of these shot are probably buckshot, but a few, very small, rifle or pistol balls may be included. The function of these larger buckshot is problematic. They are too large to fit a .69 caliber buck and ball cartridge - that is, a triangular array of three on top of the musket ball would exceed the diameter of the bore. This suggests that they may be from .75 caliber buck and ball cartridges, either British or American, but no such cartridges have been confirmed in any Camden Battlefield collection. Some examples, at least, are from buckshot cartridges rather than buck and ball cartridges; we have documented two unfired loads of mixed buckshot, both of which included balls in a range of sizes found together *in situ*. An example recovered in Area 59 included eight buckshot in six sizes ranging from .285" to .345." These may represent the personal preference of a soldier with either a .69 or a .75 caliber musket. In any case, the distribution of these larger shot is of little diagnostic utility.

Figure 4.15: Distribution of miscellaneous unfired lead shot

This figure shows the distribution of a wide variety of unfired lead shot falling in the size range of .360" to .630." Balls in this range are poorly diagnostic, and a given specimen might have been intended for one of several different weapons, military and civilian, including rifles, pistols, carbines, fusils, trade guns and fowlers. Twenty-four examples were recovered from 24 locations, and because of their diversity they are individually numbered and identified.

Several regulation military firearms may be represented among the "miscellaneous" lead shot, particularly the largest examples. Armand's cavalry were probably armed with French carbines, which were .67 caliber weapons that fired a regulation ball of .629" (Neumann and Kravic 1975:65; Moller 1993:340-348; Hamilton 1976:130). British mounted troops carried one of several carbine models, all of which were .65 caliber (Moller 1993:256-265; Peterson 1968:44-45). These weapons probably fired a ball of about .60." There were two models of pistols issued to British mounted troops, including a .65 and a .69 caliber pattern (Peterson 1968:46-48).

The most interesting of the miscellaneous shot are a large group of remarkably crude balls that are about .585," although they are so asymmetrical as to require minimum and maximum measurements (e.g. .576/.588," .585/.612"). These balls were made in very poor molds with cavities that were less than hemispherical, and they retain badly trimmed sprue remnants and mold seam flash. They are not the product of some militiaman's personal mold – they are common in Camden battlefield collections, and were clearly mass-produced, widely issued, and commonly fired during the battle. It has been suggested that these projectiles were case shot balls. Indeed, there is one example (Figure 4.10, #12) recovered during this project that has the characteristic scalloping found on fired lead case shot (Legg, Smith and Wilson 2005: Figure 6.8). At about 20 grams in weight, they are smaller than the other known lead case shot balls from Camden, which weigh about 26 - 28 grams. However, some unfired examples have cartridge powder marks and other fired examples are not scalloped. It is possible that they were made for use as case shot, and were later pressed into service as undersized but usable musket balls.

Figure 4.16: Distribution of all unfired lead shot

This figure combines the data in Figures 4.11 to 4.15, and includes 417 unfired lead shot from 373 different locations. The deposition of unfired lead shot requires the presence of the users at the same location, unlike fired shot, which may be well removed from actual troop locations. In that sense, unfired shot data provides more specific information, and logically should appear more tightly defined when mapped than fired shot. In fact, the unfired ammunition distribution appears as generalized as the fired shot data (below).

Figure 4.17: Distribution of fired .69 caliber musket balls

This figure shows the distribution of fired lead shot that are probably from .69 caliber French muskets (see Figure 4.11). A total of 48 examples were recovered from 48 different locations; like the unfired .69 caliber balls, the fired .69 balls are certainly underrepresented, as they have always been easy to detect.

Figure 4.18: Distribution of fired buckshot, .250" to .320" in diameter

This figure shows the distribution of smaller fired buckshot, most of which were probably fired in buck and ball cartridges from .69 caliber French muskets (see Figures 4.11, 4.12). A total of 437 examples were recovered from 416 different locations. Given the collector attrition of .69 caliber musket balls (above), these buckshot provide the best information we have regarding the distribution of .69 caliber musket fire, with the understanding that the ball would have traveled farther down range than these buckshot.

Figure 4.19: Distribution of fired .75 caliber musket balls

This figure shows the distribution of fired lead shot that are probably from .75 caliber British muskets (see Figure 4.13). Like the fired .69 caliber balls, a total of 48 examples were recovered from 48 different locations. Again, these balls are certainly badly underrepresented – as the largest lead shot on the field, their numbers have been severely thinned by years of de-

Figure 4.15: Distribution of Miscellaneous Unfired Lead Shot

1. 20 004 001: Lead shot, unfired, .555," 16.1g, p.d. .563."
2. 22 050 001: Lead shot, unfired, .581/.616," 19.4g, p.d. .599," very crude mold.
3. 22 192 001: Lead shot, unfired, .580/.600," 20.1g, p.d. .606," very crude mold.
4. 22 193 001: Lead shot, unfired, .481," 9.7g, p.d. .476."
5. 22 321 001: Lead shot, unfired, .375," 4.9g, p.d. .379."
6. 25 008 001: Lead shot, unfired, .542," 15.2g, p.d. .552."
7. 26 035 001: Lead shot, unfired, .575," 17.1g, p.d. .575."
8. 32 013 001: Lead shot, unfired, .493," 11.7g, p.d. .506."
9. 33 009 001: Lead shot, unfired, .545/.604," 17.4g, p.d. .578," mold misaligned, rolled.
10. 33 020 001: Lead shot, unfired, .545," 14.5g, p.d. .544."
11. 34 055 001: Pewter shot, unfired, .420/.460," 5.4g, p.d. >.391."
12. 42 004 001: Lead shot, unfired, .545," 14.6g, p.d. .545."
13. 42 005 001: Lead shot, unfired, .554," 15.0g, p.d. .550."
14. 48 001 001: Lead shot, unfired, .571/.612," 20.3g, p.d. .608," very crude mold.
15. 50 016 001: Lead shot, unfired, 18.7g, p.d. >.592," very crude mold, heavy powder corrosion.
16. 50 020 001: Lead shot, unfired, .568/.612," 17.8g, p.d. .582," very crude mold.
17. 51 003 001: Lead shot, unfired, .612," 21.3g, p.d. .618."
18. 51 005 001: Lead shot, unfired (?), 15.8g, p.d. >.560, heavy road abrasion.
19. 51 007 001: Lead shot, unfired, .560," 16.5g, p.d. .568."
20. 52 001 001: Lead shot, unfired, .566/.601," 17.8g, p.d. .582," very crude mold.
21. 52 002 001: Lead shot, unfired, as 52 001 001 but substantially melted.
22. 54 001 001: Lead shot, unfired, .588/.628," 21.4g, p.d. .619," very crude mold.
23. 71 002 001: Lead shot, unfired, .580/.619," 21.1g, p.d. .616," very crude mold.
24. 73 003 001: Lead shot, unfired, .588/.601," 20.7g, p.d. .612," very crude mold.

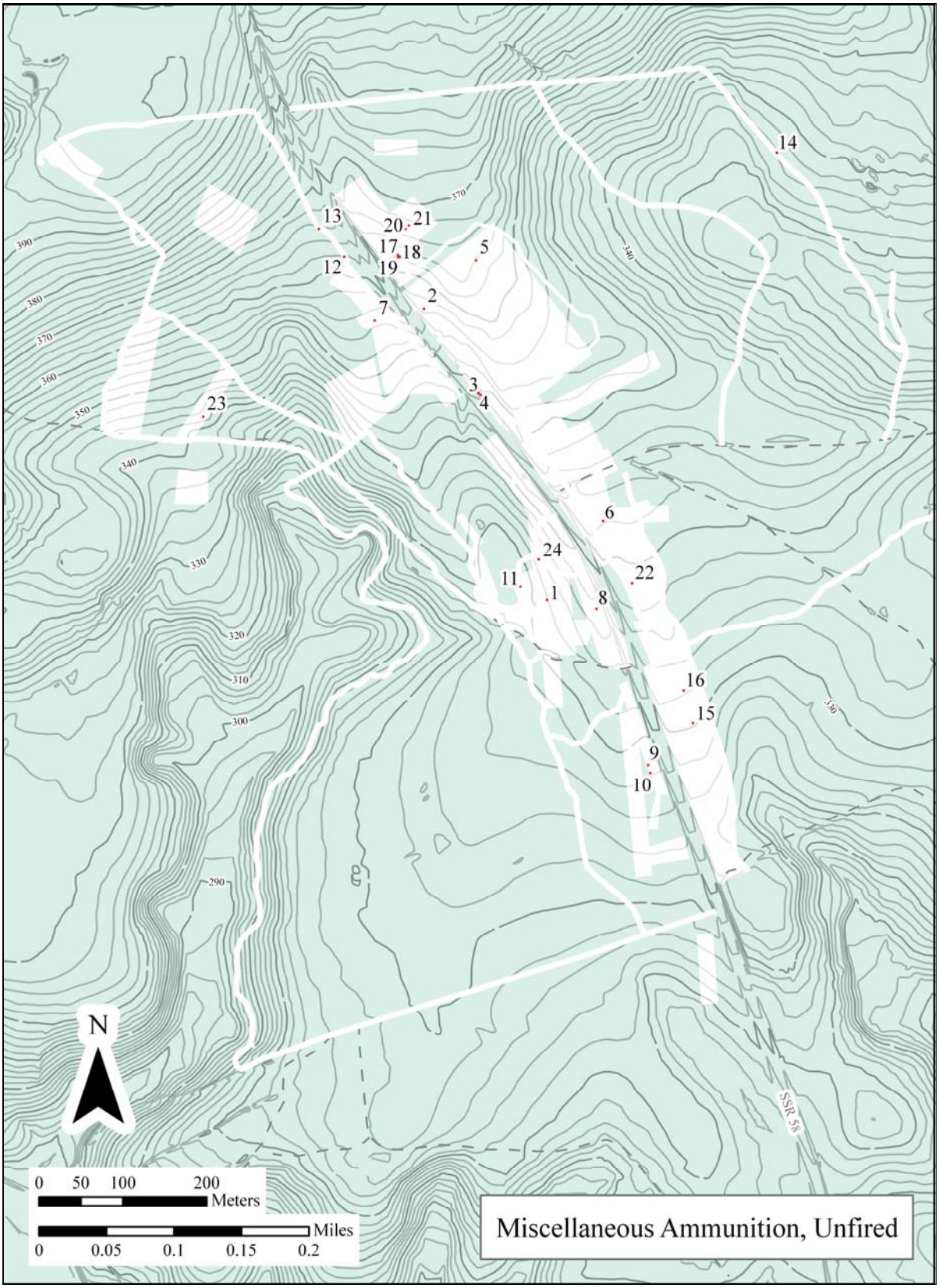


Figure 4.15 Distribution of miscellaneous unfired lead shot.

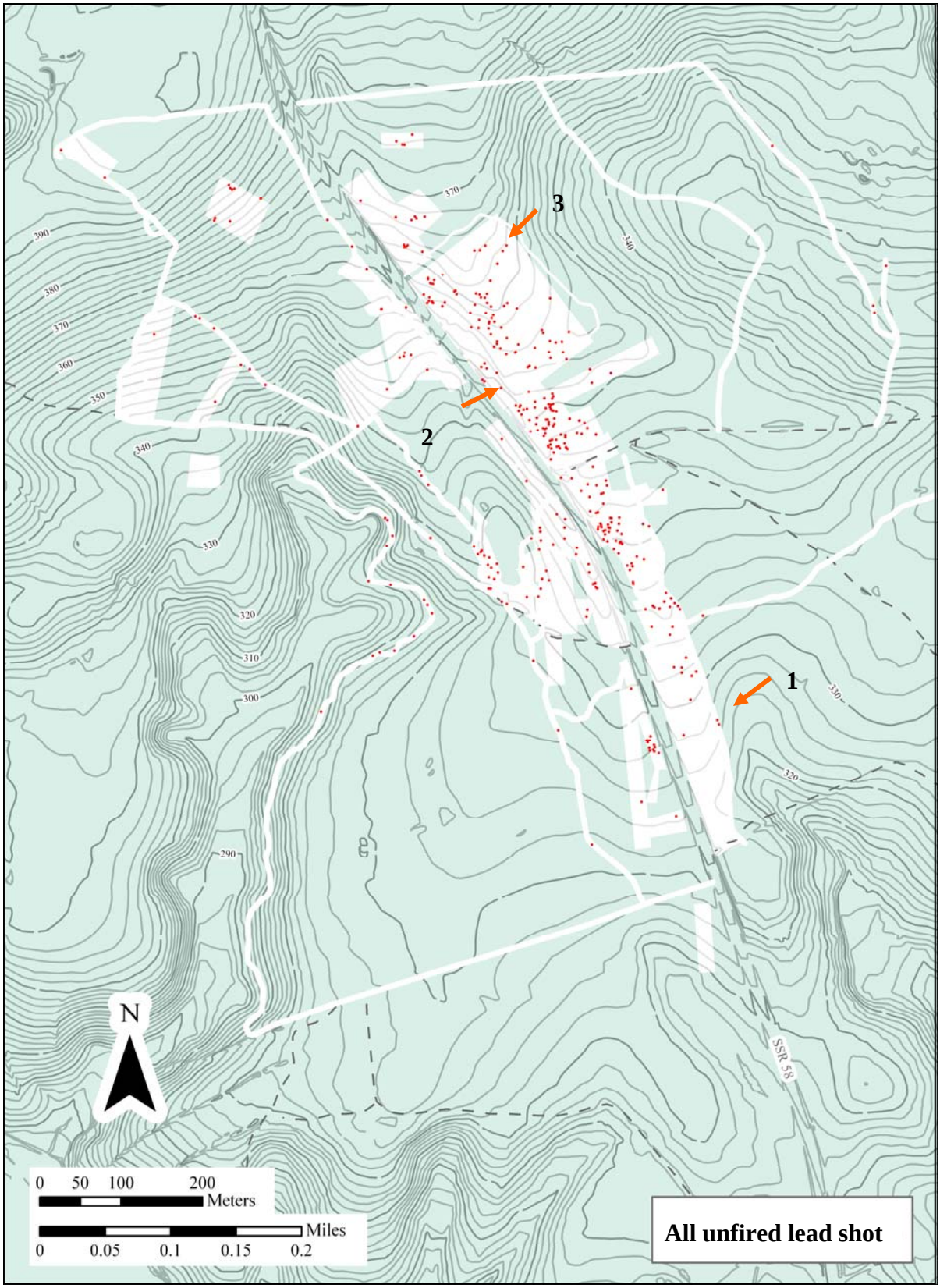


Figure 4.16 Distribution of all unfired lead shot. Red arrows for Chapter 5 interpretations.

Figure 4.17 Distribution of fired .69 caliber musket balls. Red arrow for Chapter 5 interpretations.

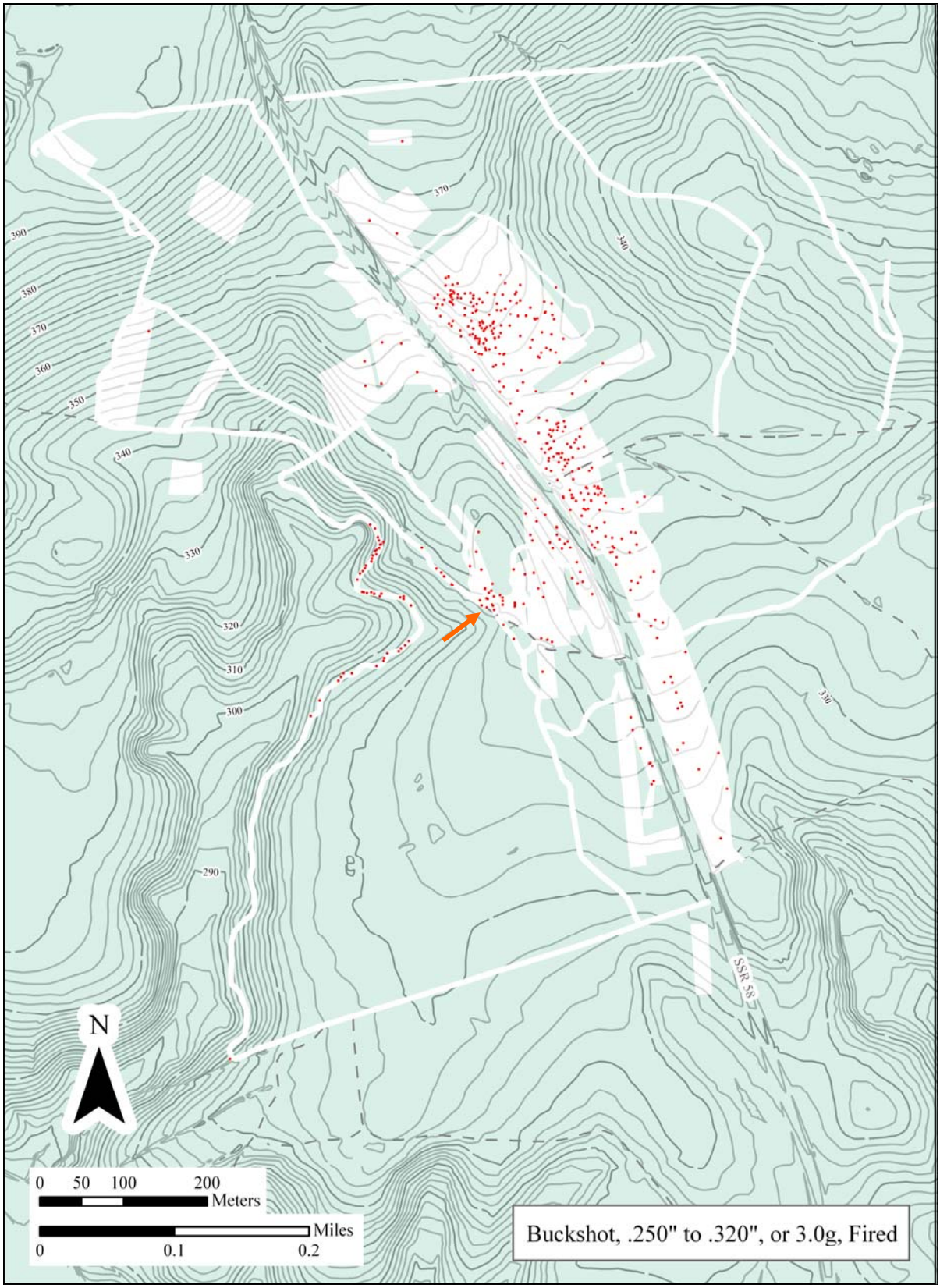


Figure 4.18 Distribution of fired buckshot, .250" to .320." Red Arrow for Chapter 5 interpretations.

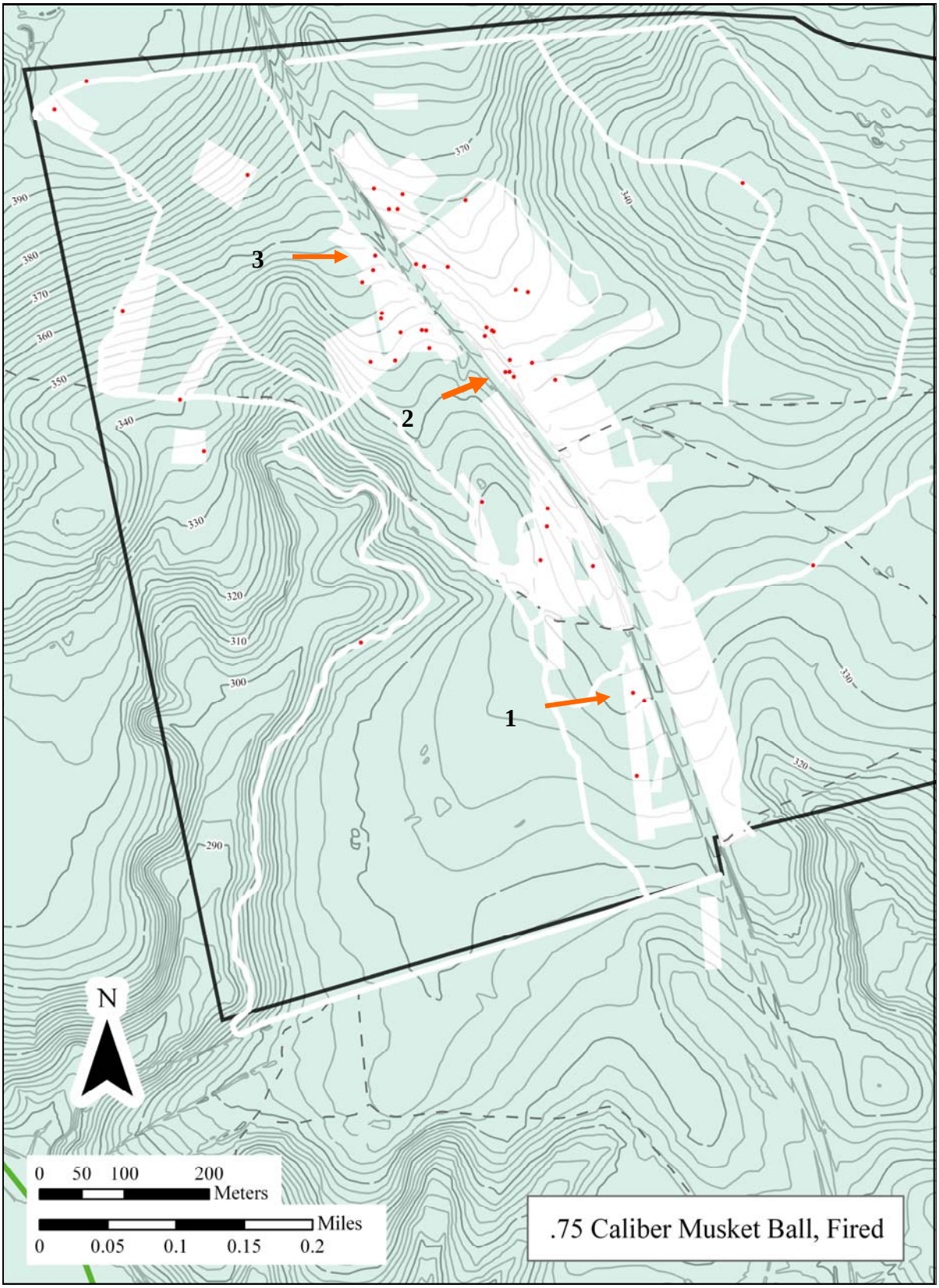


Figure 4.19 Distribution of fired .75 caliber musket balls. Red arrow for Chapter 5 interpretations.

tecting, leaving scant evidence for the distribution of British fire.

Figure 4.20: Distribution of fired buckshot, .320" to .360" in diameter

This figure shows the distribution of larger fired buckshot of uncertain function (see Figure 4.14). A total of 24 examples were recovered from 24 different locations. Like the unfired examples, the distribution of the fired specimens is not helpful in suggesting what weapon or weapons employed these shot.

Figure 4.21: Distribution of miscellaneous lead shot, fired

This figure shows the distribution of fired lead shot of miscellaneous sizes between .360" and .630," and certain other fired examples including torn fragments of fired balls. A total of 32 examples were recovered from 32 different locations, and because of their diversity they are individually numbered and identified. Most of these shot are as poorly diagnostic as the corresponding unfired specimens (Figure 4.15), but in a few cases firing has imparted additional clues. These include three buckshot specimens clearly fired in buckshot loads rather than in buck and ball loads, one of which was fired in a rifled barrel. Four, fired rifle balls were identified – none of these, of course, would have been identifiable as such if unfired. Rifle balls are rare in private collections from Camden. There were no units of riflemen in the Battle of Camden, although there may have been a few rifles among the militia on either side. The occurrence of rifle balls is so rare that the few examples recovered may actually represent civilian hunting before or after the battle, in any case the use of rifles in the Battle of Camden was insignificant.

Figure 4.22: Distribution of all fired lead shot

This figure combines the data from Figures 4.17 to 4.21, and includes 589 fired lead shot from 568 different locations.

Figure 4.23: Distribution of all battle artifacts

This figure combines the data from Figures 4.8 to 4.22, together with previously unmapped occurrences of melted lead (80 specimens),[9] melted pewter (3), and "other" ammunition (13), including cut fragments and other specimens that could not be classed as either fired or unfired. A total of 1,165 artifacts from 1,099 different locations are shown on Figure 4.23.[10]

Summary of Data Presented

When it became clear that the SAT metal detecting project was yielding a large amount of battle data, we looked forward to the insights we might derive from mapping various classes and combinations of material. In spite of a subjective impression in the field that the distributions were generalized, we anticipated that various subsets of artifacts would map differentially, suggesting positions and movements during the battle. The figures preceding Figure 4.23 present the results of such distribution mapping. The patterns revealed are not as clear as hoped, and the various subsets co-occur to a remarkable degree. In the end, Figure 4.23 is by far the

Figure 4.20 Distribution of fired .320" to .360" buckshot.

Figure 4.21: Distribution of Miscellaneous Fired Lead Shot.

1. 20 007 001: Lead shot, fired, 16.9g, p.d. .572."
2. 20 015 001: Lead shot, fired, 9.4g, p.d. .471," with probable rifling marks.
3. 20 017 001: Lead shot, fired, 18.0g, p.d. .584."
4. 22 003 001: Lead shot, fired, 19.7g, p.d. .602."
5. 22 063 001: Lead shot fragment, 5.3g, portion of a torn ball.
6. 22 134 001: Lead shot, fired, 22.1g, p.d. .626."
7. 22 179 001: Lead shot, fired, 10.4g, p.d. .487."
8. 22 244 001: Lead shot fragment, 5.2g, portion of a torn ball.
9. 22 260 001: Lead shot, fired, 19.8g, p.d. .603."
10. 27 002 001: Lead shot, fired, 18.7g, p.d. .592."
11. 28 004 001: Lead shot, fired, 11.7g, p.d. .506."
12. 30 003 001: Lead shot, fired, 21.0g, p.d. .615."
13. 30 009 001: Lead shot, fired, 18.0g, p.d. .584."
14. 30 016 001: Lead shot, fired, 15.3g, p.d. .554."
15. 30 034 001: Lead shot, fired, 2.5g, p.d. .302," fired as buckshot from a rifle.
16. 30 046 001: Lead shot fragment, 0.9g, portion of a torn ball.
17. 30 063 001: Lead shot, fired, 21.9g, p.d. .624," with three buck and ball dents.
18. 30 097 001: Lead shot, fired, 2.5g, p.d. .302," fired as buckshot.
19. 31 043 001: Lead shot, fired, 22.4g, p.d. .629."
20. 33 004 001: Lead shot, fired, 18.0g, p.d. .584."
21. 34 024 001: Lead shot, fired, 17.4g, p.d. .578."
22. 34 033 001: Lead shot, fired, 18.6g, partially melted, p.d. >.591."
23. 39 003 001: Lead shot fragment, 8.5g, portion of a torn ball.
24. 39 013 001: Lead shot, fired, 20.6g, p.d. .611," with rifling marks.
25. 39 014 001: Lead shot, fired, 14.0g, p.d. .537."
26. 40 053 001: Lead shot, fired, 16.1g, p.d. .563."
27. 40 054 001: Lead shot, fired, 5.7g, p.d. .398."
28. 40 060 001: Lead shot, fired, 20.0g, p.d. .605," very crude mold.
29. 45 010 001: Lead shot, fired, 5.5g, p.d. .393," with rifling marks.
30. 47 030 001: Lead shot, fired, 22.1g, p.d. .626."
31. 50 001 001: Lead shot, fired, 17.0g, p.d. .573," very crude mold.
32. 51 010 001: Lead shot, fired, 3.6g, p.d. .342," with rifling marks.
33. 59 007 001: Lead shot fragment, 1.8g, portion of a torn ball.

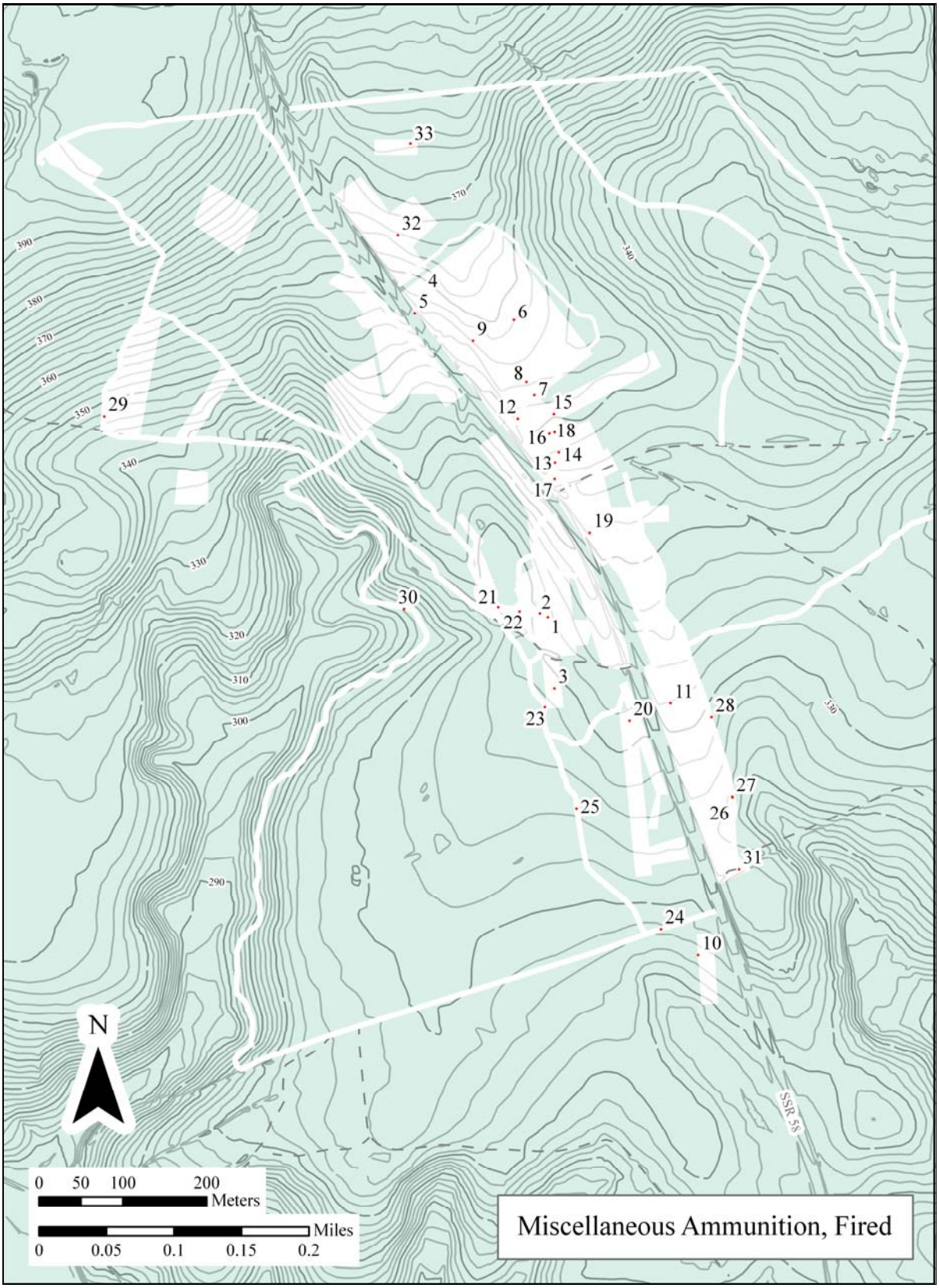


Figure 4.21 Distribution of miscellaneous fired lead shot.

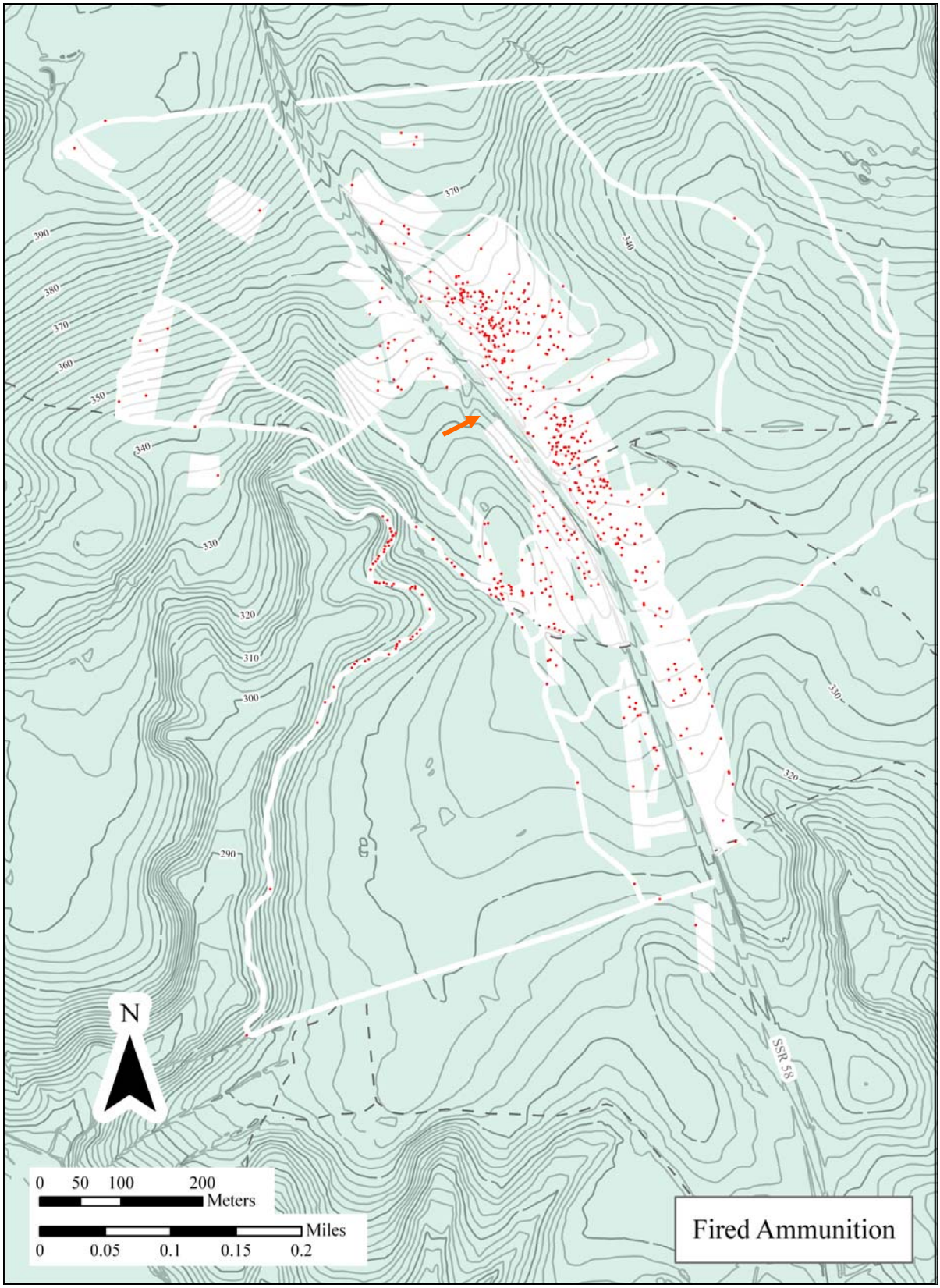


Figure 4.22 Distribution of all fired lead shot. Red arrow for Chapter 5 interpretations.

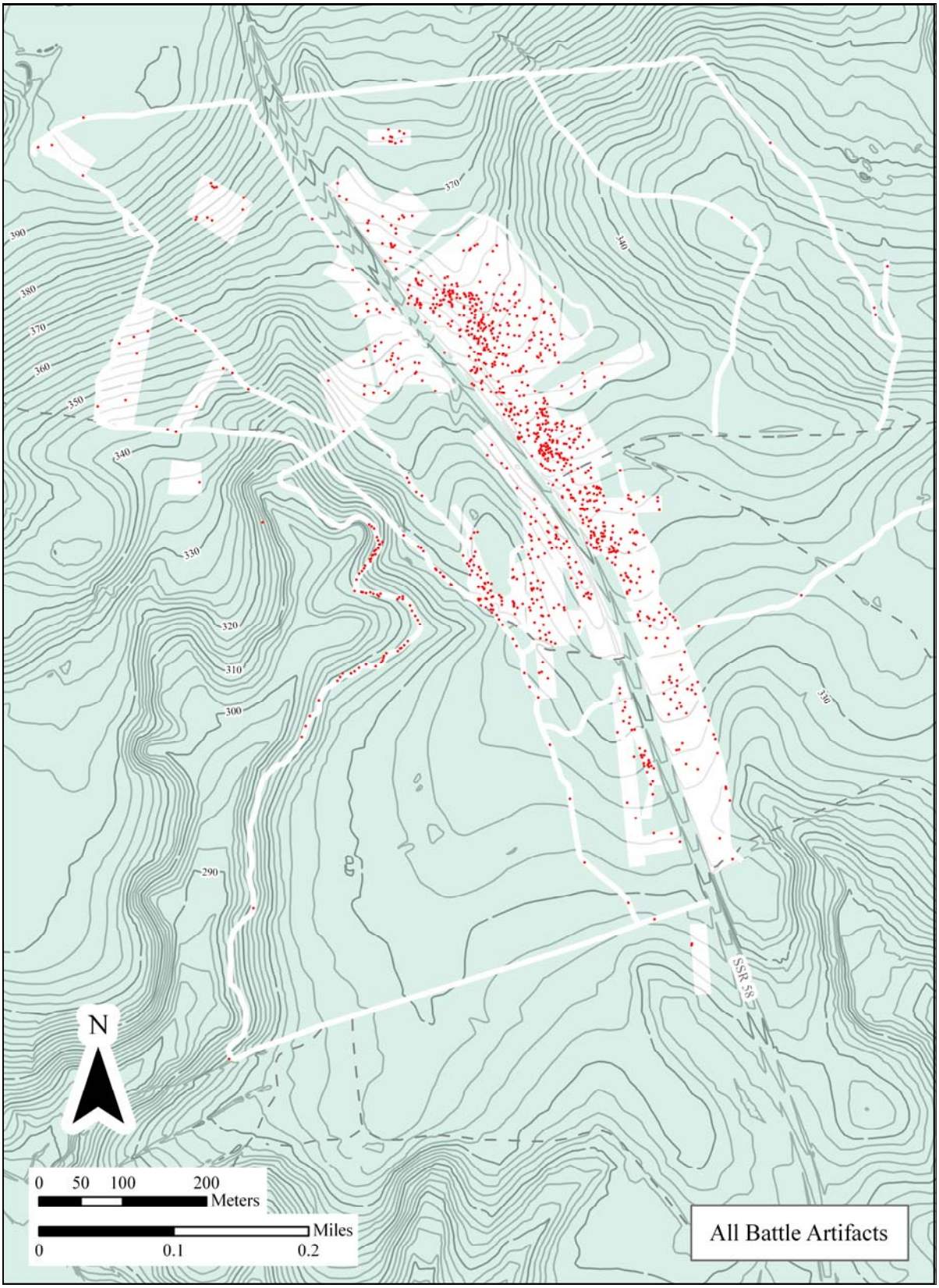


Figure 4.23 Distribution of all battle artifacts.

most useful result of our efforts, and it shows, essentially, the location of the heaviest action in the Battle of Camden.

We suggest two major causes for the very generalized distribution of the artifacts. First, the very fluid and confused nature of the battle precludes distributions that clearly define the fighting positions of the two armies; participant testimony (Chapter 2) makes it clear that both east and west of the road, both sides must have fought from, and moved through, several positions; at least two advances and withdraws by the 1st Maryland Brigade and maybe more by the 2nd Maryland. Secondly, we are dealing with only a vestige of the original artifact depositions, those objects left behind after decades of private collecting. While 1,165 artifacts can certainly locate the battle with considerable clarity, 20,000 artifacts from the same search areas might have shed somewhat more light on the subject. If, for example, we could map all of the unfired .69 and .75 caliber musket balls present in 1950, some distinctions would probably have emerged.

Nevertheless, Chapter 5 attempts to tease out some patterns from the data presented in this chapter, and combined with our previous efforts and the collector data, presents what we believe is a reasonable argument for the flow of the battle in four phases.

Endnotes

[1]As recently as the 1980's, many archaeologists objected to the use of metal detectors in any archaeological context, due to their association with "looting," and a general ignorance of its potential. With the exception of a few pioneers like Roy Dickens and Doug Scott, the archaeological community was slow to recognize the great utility of metal detecting on non-architectural military sites, together with the futility of certain traditional methods such as shovel testing and area excavation. Metal detectors are finally in general use, however, and the literature of successful applications has grown dramatically over the last 20 years. See Conner, Melissa and Douglas D. Scott, "Metal Detector Use in Archaeology: An Introduction," *Historical Archaeology*, 1998, 32(4):76-85. Douglas D. Scott, Richard A. Fox, Jr., Melissa A. Connor, and Dick Harmon, *Archaeological Perspectives on the Battle of the Little Bighorn* (Norman: University of Oklahoma Press, 1989); James B. Legg and Steven D. Smith, *"The Best Ever occupied...": Archaeological Investigations of a Civil War Encampment on Folly Island, South Carolina* (Columbia: South Carolina Institute of Archaeology and Anthropology, 1989); Richard A. Fox, Jr., *Archaeology, History, and Custer's Last Battle* (Norman: University of Oklahoma Press,1993); William B. Lees, "When the Shooting Stopped, the War Began," in Clarence R. Geier, Jr., and Susan E. Winter, eds., *Look to the Earth: Historical Archaeology and the American Civil War* (Knoxville: University of Tennessee Press, 1994); Steven D. Smith, "Archaeological Perspectives on the Civil War: The Challenge to Achieve Relevance," in Geier and Winter 1994; Smith, Steven D., and James B. Legg, "Archaeological and Historical Analysis of the Camden Battlefield, August 16th, 1780. *Southeastern Archaeological Conference***,** Charlotte, NC, November 13, 2003; Charles M. Haecker and Jeffrey G. Mauck, *On the Prairie of Palo Alto* (College Station: Texas A&M University Press, 1997); Douglas D. Scott and William J. Hunt, Jr., *The Civil War Battle at Monroe's Crossroads, Fort Bragg, North Carolina: A Historical Archaeological Perspective* (Tallahassee: Southeast Archaeological Center, National Park Service, 1998); Bruce B. Sterling and Bernard W. Slaughter, "Surveying the Civil War: Methodological Approaches at Antietam Battlefield," in Clarence R. Geier and Stephen R. Potter, eds., Archaeological Perspectives on the American Civil War (Gainesville: University of Florida Press, 2000); Christopher T. Espenshade, Robert L. Jolley, and James B. Legg, "The Value and Treatment of Civil War Military Sites," *North American Archaeologist*, 2002, 23(1), pp. 39-67; Douglas D. Scott, "Oral Tradition and Archaeology: Conflict and Concordance from Two Indian War Sites," *Historical Archaeology*, 2003, 37(3), pp.55-65.

[2]With very rare exceptions, small arms ammunition was spherical until practical elongated designs began to emerge in the 2nd quarter of the 19th century. The Crimean War (1854-56) was the first conflict featuring distinctive bullet patterns fielded by the several belligerents.

[3]By the time of the American Civil War, the term "case shot" was applied to explosive shells containing musket balls for anti-personnel use; still later, such projectiles were called "shrapnel shells." Case shot is distinct from grape shot, which consisted of larger iron balls bolted together in a stack, or secured in a bound ("quilted") cloth cover. Grape shot was normally a naval ammunition but was used on land (Caruana 1979.:2).

[4]Here is another possible source for the tacks found on the Camden Battlefield (Legg, Smith and Wilson 2005:108).

[5]These lead canister balls were not recognized as such by the collectors in our survey, and none were individually plotted. At least four examples, however, came from the south end of the battlefield, east of State Route 58, where they were probably fired at the British right. Sivilich (2004:16,17) reported American musket ball canister from the Monmouth Battlefield. An excavated six-pounder musket ball round of unknown provenience is illustrated in Neumann and Kravic (1997:10 Fig.4). Most of the lead case shot analyzed in private Camden collections were 26 to 28g (.661" to .680"), a size rather too large for a French musket and small for a British musket – these may have been ill-suited musket balls relegated to use as case shot. One 27.1g example found by Collector #17 had a very clear and undistorted barrel mark indicating that it was probably fired in a 6-pounder gun.

[6]Hamilton (1976:130) records that the French regulation ball for the .69 caliber musket in the 18th century was .652" in diameter, which is somewhat larger than most balls recovered from American contexts. The new United States settled on a regulation ball of .640," and it remained standard until the Civil War, while the French reduced their standard .69 caliber ball to .629" in 1800 (Thomas 1997:100;Hamilton 1976:130).

[7]A sample of 1,028 Camden buckshot measured by Henderson (n.d.:2) found 913 examples within the range .2812" to .3125," with 12 smaller and 103 larger.

[8]There is currently some controversy regarding the British use of "buck and ball" during the war. There is no evidence that any fired or unfired .75 caliber musket balls from the Camden battlefield were in cartridges with buckshot and there is strong evidence from elsewhere that at least British regulars did not normally use "buck and ball."

For instance, a collection from the British camp of 16 and 17 August, 1780, on the south side of Granny Quarter Creek included a large quantity of unfired British musket balls, with *no* buckshot in association (Joe Henderson, personal communication, 2004). A collection of .75 caliber lead shot metal detected by Legg from the British camp at Fort Fairlawn did not include buckshot. Yet, Larry Babits (personal communication 2004, 2008) notes that the British did adopt buck and ball after Camden, based on numerous pension accounts from veterans of the Cowpens, Guilford Court House, Hobkirk's Hill, Ninety-Six and Eutaw Springs battles. The discrepancy may be due to the use of captured French muskets by Loyalist units, or personal preference, but as of yet we have no evidence of the British regulars using such cartridges. If they did adopt the practice on the American front, they must have abandoned it when they returned to Europe. Buck and ball is also unknown on European battlefields of the Seven Years War, the French Revolutionary Wars and the Napoleonic Wars (Brad Posey, personal communication, 2004).

[9]The only melted lead specimens considered battle artifacts were those with heavy lead patina comparable to that seen on lead shot from the Battle of Camden.

[10]"Miscellaneous" class artifacts are not included. This group includes a wide variety of mostly iron artifacts of uncertain origin, including iron buckles, horse shoes and horse shoe fragments, bit parts, eating utensils, unidentified wrought iron implements and hardware, wrought nails and spikes, etc. Probably most of these objects are battle artifacts, but their ambiguity excludes them from Figure 4.23.

CHAPTER 5: ARCHAEOLOGICAL INTERPRETATION OF THE CAMDEN BATTLEFIELD

Introduction

Previous research using relic collector interviews, historic research, and a small scale metal detecting survey, resulted in a proposed battle scenario consisting of four phases (Legg, Smith and Wilson 2005). That study also projected hypothesized locations of the main American and British units for each phase onto a modern 7.5 minute U.S.G.S. Topographic map. As stated at the time, "this is not the last word on the Battle of Camden, but this scenario is offered as a 'line of departure' for future debate" (Legg, Smith and Wilson 2005:61). The present project has provided abundant additional archaeological information to further refine our original interpretation.

The incorporation of our systematic controlled metal detecting survey with the previous analysis provides powerful, physical, and conclusive proof of the location of the general battle events that unfolded on August 16th, 1780, including the anchoring of the initial battle lines, location of the struggle between De Kalb and the British left, the advance and retreat of the 1st Maryland Brigade, and the likely routes of escape. Our conclusion is that our initial analysis of the unfolding of the battle from the Collector Survey was largely correct. The archaeological data from this project not only supports that analysis but also provides additional precision, and offers intriguing, but admittedly less conclusive, evidence of specific moments in the battle. This precision has been enhanced by placing the archaeological finds on the two-foot contour map funded by PCF. This chapter serves to present and discuss the unfolding of the Battle of Camden based on all of the evidence from the collector's survey and the archaeological investigations.

Camden battlefield Archaeological Coverage

Ideally, we would have liked complete 100% coverage. Nevertheless, the 78 areas and firebreaks covered confirm an intense battle from a broad, 400 meter long, east-west line about 300 meters south of the DAR park southern boundary, turning north and continuing up to the northern boundary of the DAR park, and running along the east side of the road (Figure 3.1). This area of intense combat is shaped somewhat like a fish-hook, with the hook facing west. Surrounding this is a less dense, but still impressive scatter of battle related artifacts surrounding this shape to the northwest and south (Figure 4.23). From the combined data, there is simply no other conclusion that can be drawn except that the most intensive combat occurred in the areas depicted on Figures 3.1 and 4.23. Admittedly, our archaeological survey did not intensively cover the battlefield east and southeast of the DAR park. However, sampling (firebreaks 43, 44, 41, 48, and area 53), did not recover large quantities of artifacts in this area. Doubtless, there are materials immediately east of firebreaks 40 and 50, or areas 54 and 50, however, this zone was not burned and consists of young planted pines. Coverage with a metal detector at this time would not have produced much evidence given the conditions and awaits a future controlled burn. In any case, our evidence suggests that not much would have been or will be found there if future opportunities become available.

Likewise, we would have liked to have had the time to increase our coverage of the broad hill and slope northwest of the DAR park. Again, sampling of areas 56, 70, 72, 57, 71, and firebreaks 42 and 45, indicate exactly what was expected; evidence of battle, but not the density seen in the DAR park and along the road south of the park. Still another gap is immediately southwest of the DAR park. This area unfortunately has been damaged by heavy equipment, and is still in briars and young pine. The likelihood of obtaining good data here is not promising. Nevertheless, firebreak 38 and area 35 indicate that the battle continued there, though not as intense as in the DAR park and to the south. Note the lack of artifacts along the northern end of firebreaks 38 and 47, and southern end of firebreak 45 (Figures 4.2, 4.23). Finally, the controlled burn did not include a zone 500 to 600 meters northwest of the DAR park. Again, this area is in young pine and nearly impossible to search systematically. Our inclusion of this area as a concentration of artifacts is based solely on collector interviews.

Overall, while the distribution of various types of ammunition and accoutrements across the battlefield is not as clear as we would like, there are important interpretations that can be drawn by the combined archaeological data presented on the various archaeological and collector maps in the previous chapters and in Legg, Smith, and Wilson 2005.

Night Battle

In Legg, Smith, and Wilson 2005, we did not offer a specific hypothesis regarding the night battle but implied that it probably occurred south of our proposed initial British deployment line (2005:73-74) (Figure 5.1). We are now convinced that this skirmish occurred within and south of the initial British deployment (Figure 5.1). There are sufficient numbers of battle related artifacts (Figure 4.23) to indicate a skirmish there. There are very few ammunition artifacts found in areas 27, 78, and the southern ends of 50 and 23. Collectors have indicated they found lead shot south of the PCF boundary line, even in the deep draw south of the line (Figure 5.1). Furthermore, collectors have indicated that there was a Continental soldier burial near the PCF line (Smith, Legg, and Leader 2009). We do not believe that this soldier would have been dragged to that location; rather it is more likely he was buried where he was killed and therefore is likely to have been killed in the night battle.

Figure 4.12 arrow 1, 4.16, arrow 1 shows an interesting east-west line of unfired buckshot and other shot in areas 33 and 50. Also, there are two fired .75 caliber balls along the same line of the unfired shot (Figure 4.19, arrow 1). These distributions may indicate the initial deployment line of the American front at night (unfired buckshot and fired .75s), with subsequent withdrawal and occupation by the British. We may also be pressing the data too hard, but it is interesting to speculate these clusters represent the shadow of a battle line.

Phase I

As noted, we are firmly convinced that the initial British and American lines as projected on the two foot contour map are accurate (Figure 5.1). This map depicts the deployment of both forces about the time Captain Singleton of the American artillery sees the British

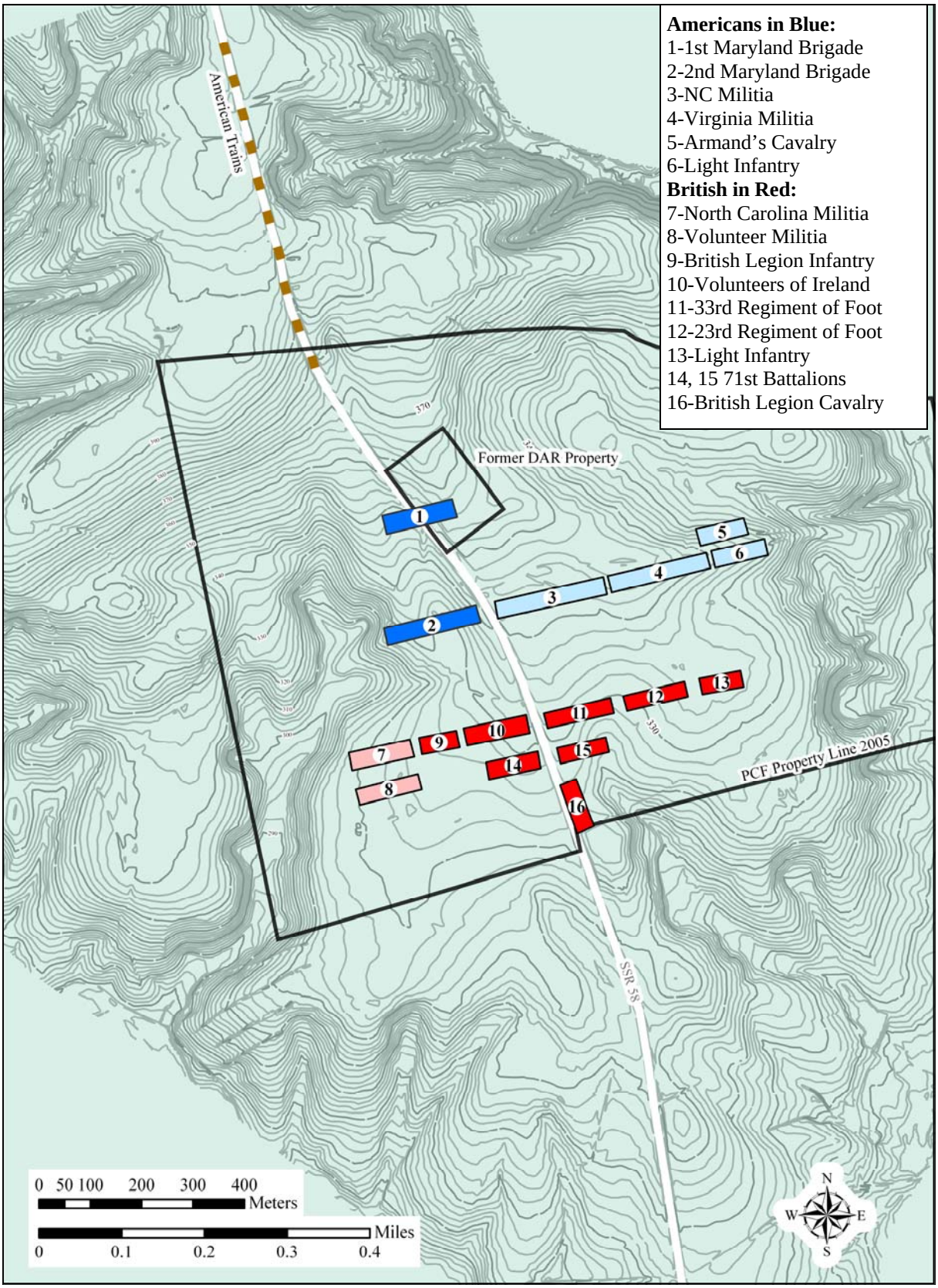


Figure 5.1 Phase I: Initial deployment of opposing forces, battle of Camden.

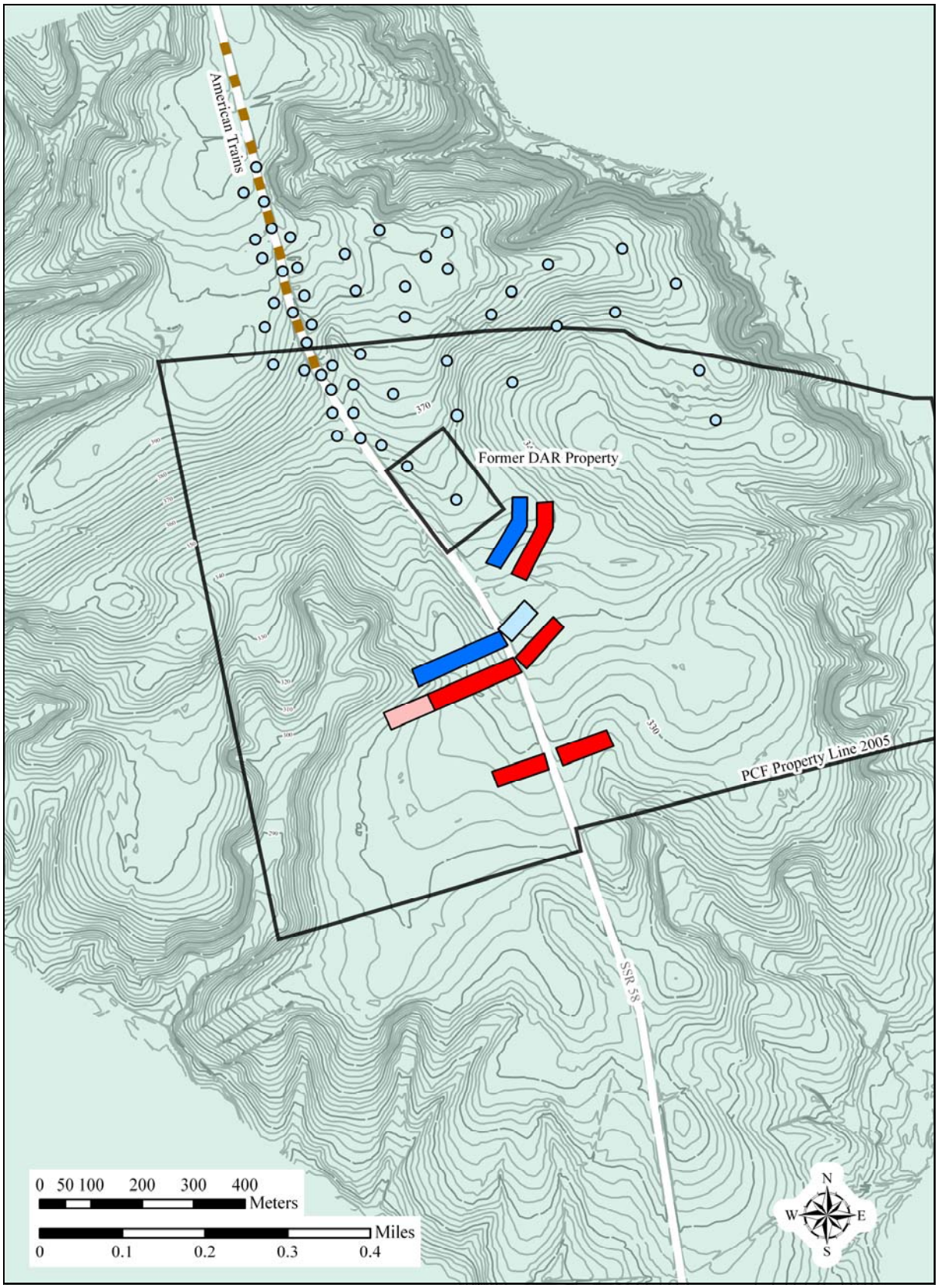


Figure 5.2 Phase II: Collapse of the American militia, engagement of Continentals and British.

maneuvering to the right and opens fire, but before Colonel Otho Williams orders the American militia forward. At this moment, the British right is actually still adjusting their lines eastward to cover the American line, which is already stretched to the eastern slope of the plateau.

On the British left, Provincials are deployed south of a swampy ravine, or as Stewart noted "the Provincials were on the left, with the marshy ground in their front" (Stewart 1977:67). The Faden and Landers maps support this placement (Figures 2.3 and 2.4) and this helps to anchor the British line from that point along the line to the right (eastern) flank.

Phase II

Figure 5.2 depicts a moment in the battle when the American left, the Virginia and North Carolina militia, has totally collapsed and is rapidly fleeing north up the main road; some undoubtedly heading off the road to the northeast. On the American right flank, De Kalb's Delaware and Maryland Continentals have advanced and pushed back the British left, and are engaged in close combat, while Dickson's North Carolina militia are holding desperately against the British 33rd.

Behind Dickson's militia and to the northeast, but south of the DAR park, the 1st Maryland Brigade has advanced to fill the line vacated by the routed militia. The British 23rd Regiment, following the militia, have slammed up against the 1st Maryland Brigade's advance and are attempting to turn the American left flank. A gap is forming between the two Continental commands.

There is no irrefutable archaeological evidence for these positions, however, there are three clusters of unfired buckshot that hint at battle episodes. First, there is a cluster of unfired buckshot of the size assumed to be from an American cartridge (Figure 4.12, arrow 2), at the projected location of the American artillery and Dickson's North Carolina militia. Second, there is another cluster of fired and unfired buckshot west of this location, at and behind, the American right (Figures 4.12, 4.18). Here is where we believe Gist's 2nd Maryland and the British Provincials, both using French muskets, engaged in intense combat. Finally, there is another large cluster of unfired buckshot (Figure 4.12, arrow 3) south of the DAR park where we have projected the combat between the 1st Maryland Brigade and the 23rd Regiment in Figure 5.2. We interpret this as the Marylanders slowly retreating under pressure from the 23rd. Our assemblage of fired .69 (French) and .75 (British) lead shot are not sufficient for much interpretation, but we do note a slight cluster of .75 fired shot (southern part of the DAR park) north of the unfired buckshot cluster (Figure 4.19, arrow 2). Perhaps this indicates over-shots by the British during this episode. In any case, the clusters of ammunition discussed above can be seen on the map of all fired lead shot, although less distinct (Figure 4.22). It is also interesting to point out the lack of .75 caliber (British) musket balls east of the road south of the DAR park (Figure 4.19). This is certainly partially due to collector activity, but is also evidence that the British right charged with bayonets and did not meet American resistance along their right flank until they were parallel with the American left, in other words, not until they clashed with the 1st Maryland Brigade.

Phase III

This phase continues the intensive combat between DeKalb's Continentals and the British Provincials with the 33rd on their right, while to the north, a back and forth battle between the 1st Maryland Brigade and 23rd has moved north into what is now the DAR park (Figure 5.3). The two battalions of the 71st have been committed and reinforce each wing of the British army. Essentially, there are two battles occurring with a widening gap between the two. Again, the archaeological data are not as clear as we would like, but the distribution of unfired buckshot, unfired shot and fired shot all imply clustering described previously with the addition of clustering in the DAR park (Figures 4.12, 4.15, 4.16, 4.22, and 4.23). Whatever happened, it is clear that there is a decrease in the density of lead shot in the southern portion of the DAR park, between two dense clusters of unfired and fired lead shot, one in area 30 and the other in the DAR park (see for instance, Figure 4.22, arrow). The map of unfired buckshot, Figure 4.12, may depict two 'stands' by the 1st Maryland Brigade. The first of these was described in Phase II (see above). The second is a line of unfired buckshot (Figure 4.12, arrow 4) extending across the DAR park just south of the DeKalb monument (not shown), northeast to the edge of the park. Is it possible this is evidence of the Marylanders' line? The distribution of unfired .69 caliber shot and cartridges also forms a line consistent with this unfired buckshot (Figure 4.11, arrow). This is somewhat further supported by fired .75 balls behind and to the west of this line (Figure 4.19, arrow 3), perhaps representing the 23rd's fire through the 1st Maryland Brigade.

Phase IV

Figure 5.4 depicts the beginning of the final phase of the main battle, the rout of all American units. De Kalb's command is broken up and retreats westward. The Provincials and 33rd have not yet moved west, but the 23rd and 71st have broken the 1st Maryland Brigade and are following them west and north. Some of De Kalb's command has been pushed over the hill and into a deep depression. There is a concentration of fired and unfired ammunition along fire break 47 in this topographic depression (Figures 4.22 and 4.23). A metal detecting reconnaissance of the upland between fire break 47 and 38 indicates a strong likelihood of artifact concentrations. The area is now covered in young pines not suitable for a systematic. But a quick sweep recovered numerous buckshot, which were returned to the ground for the future. Sometime between Phases III and IV, Tarleton's cavalry went forward in two columns, one attacking the 1st Maryland Brigade and the other getting in behind De Kalb's remnants. Their exact route is not known, but it is likely that they stayed on the plateau and did not venture far from the main road. Tarleton continued up the road to harass the militia stragglers and will meet remnants of Armand's cavalry at Rugeley's Mill. Also, at least a few American Continentals must have followed the militia by running to the northeast as unfired buckshot and one fired .75 (British) lead ball found along firebreaks 43 and 48 provide tentative evidence that some Americans were followed by the British into that area. We speculate that this occurred at the end of the fighting, since the British were not likely to have been in this area until after the 1st Maryland Brigade collapsed.

In our initial interpretation, collector finds along the broad hill slope to the northwest of the DAR park were seen as the location where American Continentals retreated and some sur-

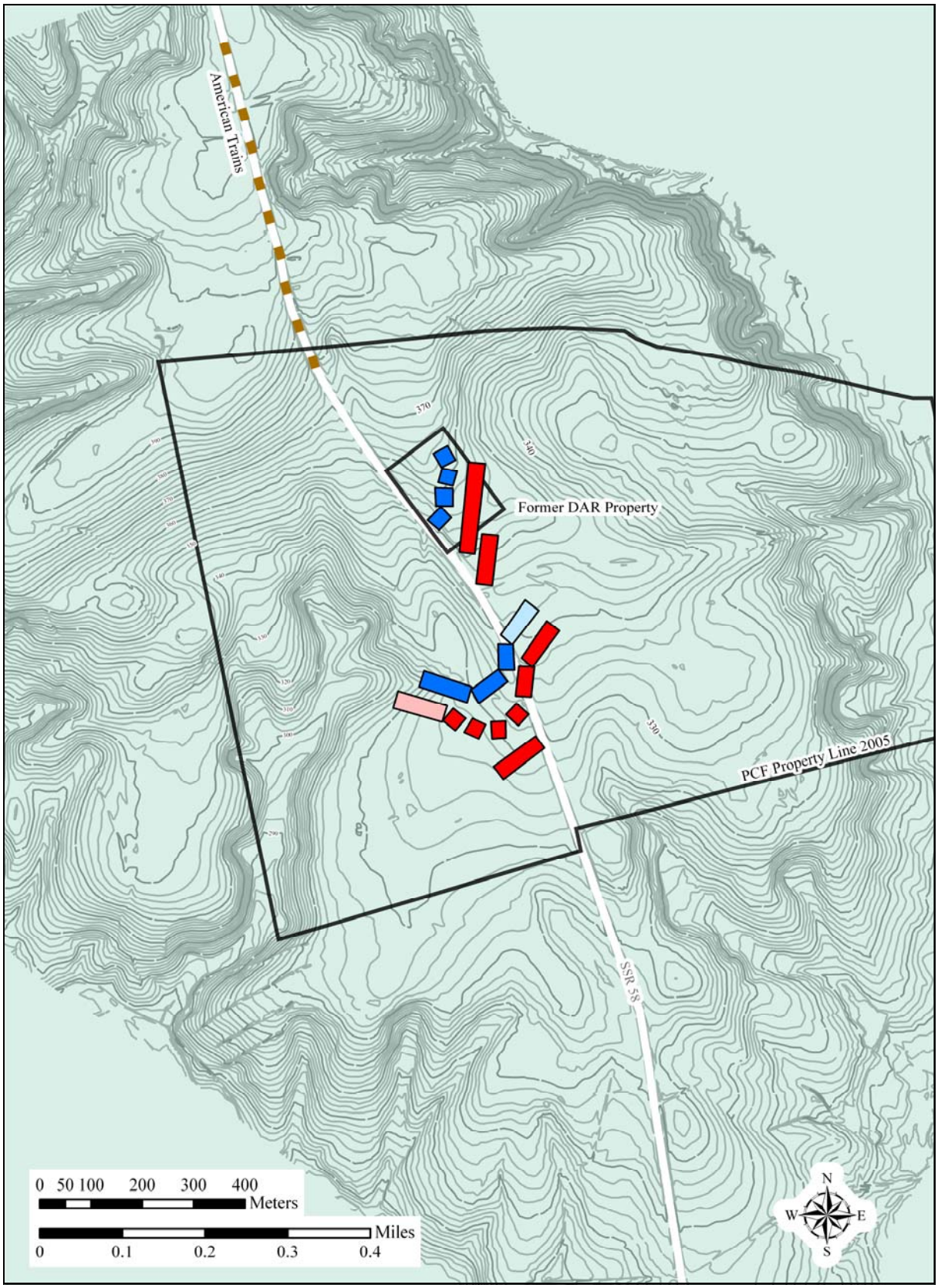


Figure 5.3 Phase III: The battle breaks into two engagements, 71st reinforces British flanks.

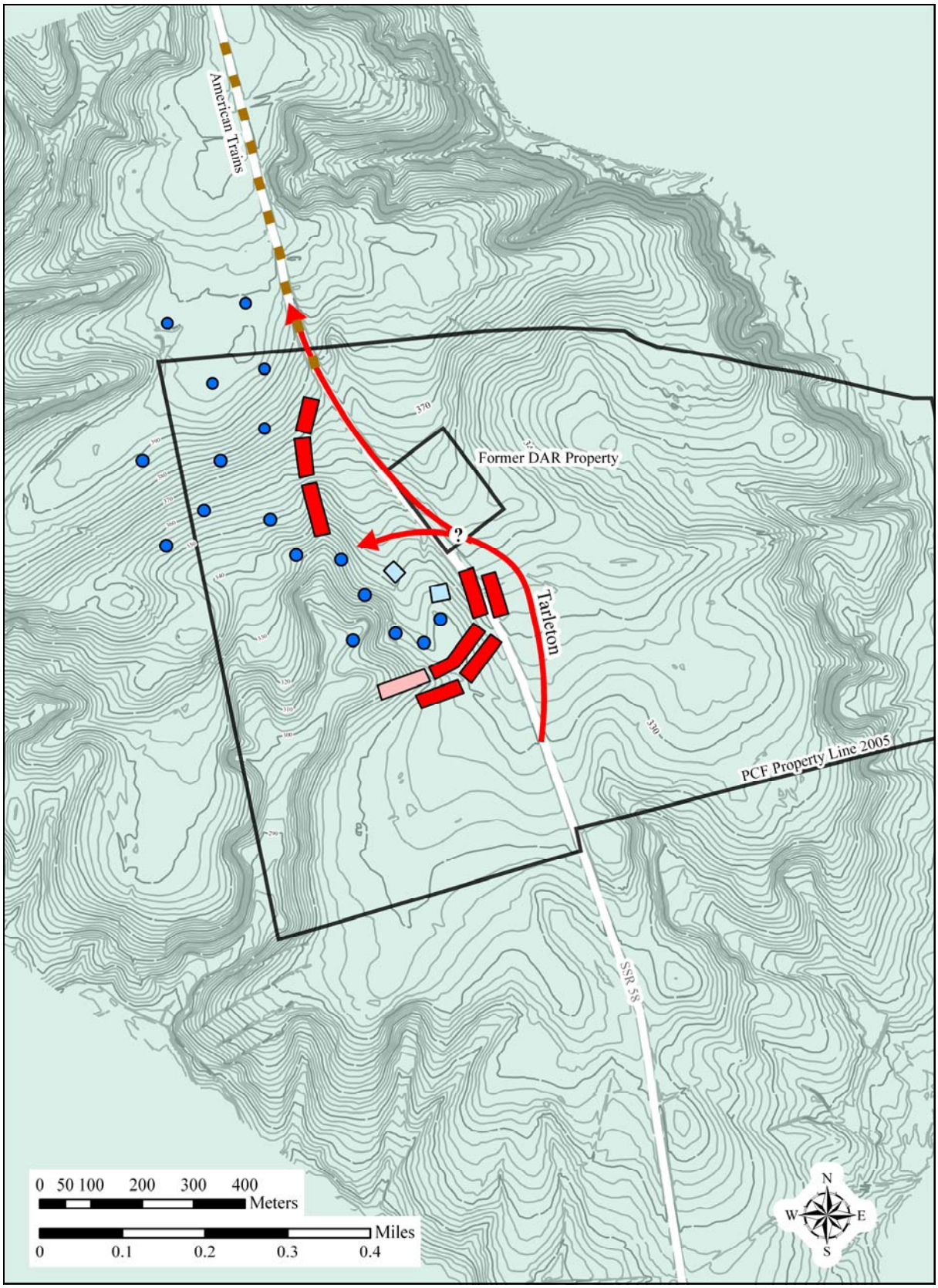


Figure 5.4 Phase IV: Tarleton's cavalry committed, all American units routed.

rendered. The distribution of all fired and unfired shot (Figures 4.16 and 4.22, 4.23) supports this scenario. There are comparatively few artifacts there (areas 57, 70, 71, 72, 76 and firebreaks 42 and 45). The complete lack of .69 caliber musket balls (Figure 4.17), nearly complete lack of fired buckshot (Figure 4.18), combined with a scatter of unfired ball and buckshot (Figures 4.11 and 4.12) implies that the American Continentals were on the run, and being chased primarily by British regulars. These distributions provide overwhelming evidence that this part of the battlefield was not the scene of intense, face to face combat. Instead, it points to an American flight, surrender, and slaughter. More than likely, the chase and capture were carried out by the 33rd, 71st, and perhaps Tarleton. The British Provincials were still engaged with remnants of DeKalb's Continentals west of the initial lines in the depression, and did not venture up the hill slope north and west of the DAR park.

Collector Data and Archaeological Data Compared

As noted, no conclusions from the archaeological data contradict those drawn from the original study (Legg, Smith, and Wilson 2005); instead the archaeological data enhances and provides greater precision to those earlier conclusions. Figures 3.3, 3.4, and 3.5 depict the collector survey data for weapons and accoutrements, clothing, and case shot onto the two-foot contour map. It is important to emphasize that these projections are our interpretations of where different collectors told us they found artifacts. They do not represent the exact location of a particular artifact, rather they represent general distributions and general provenience.

Our meager archaeological collection of case shot is consistent with, but does not necessarily overlap that found and remembered by collectors (Figures 4.5, 5.5). Our case shot assemblage appears to primarily represent British fire at the American lines (except two located in areas 78 and 27), while the collector's survey represents American fire at the British (Figure 4.10). Collectors found considerable numbers of case shot at and just south of the initial American line. We found very little, and this is disappointing, but not unexpected given the amount of relic collecting (see below). It also appears from both collections that the British moved their cannon up the road to fire at the 1st Maryland Brigade during the battle.

Another cluster of artifacts revealed by the relic collector survey, but not seen in the archaeological data is the cluster of clothing, weapons and accoutrements collectors found on the broad hill slope northwest of the DAR park (Figures 3.2 and 3.3). Our archaeological survey recovered one USA button, a complete shoe buckle, four full .69 cartridges (figure 4.11) and no weapons and accoutrements in the sample areas and firebreaks here. Several collectors report this area was rich in clothing, weapons, and accoutrement artifacts. We can only assume that these artifacts have been recovered from the site prior to our work. In either case, our interpretation for this area does not change; this was the location of Americans in flight without organized resistance. Or, as Dr. Larry Babits suggests, the clothing artifacts at this location represent the surrender of Continentals having been cut off from retreat. This also makes sense.

North of the hill slope, just above a depression and just west of the wide ridge line, collectors have indicated that at least three burials and a dense array of artifacts were found (Smith, Legg, and Leader 2009). This location is currently unsearchable, consisting of small, young

pines and thick briars. We believe that the depression has significant materials and represents a 'last stand' of some Continental soldiers, hence the red dense area shown on Figure 3.1.

Effects of Relic Collecting

It should be noted that the reason archaeological data primarily serves to supplement and enhance collectors' data is a result of the prolonged and intensive relic hunting that occurred prior to the archaeology. It is clear that despite years of relic collecting, there still remains substantial artifact material. It is also clear that most 'high grade' large artifacts have been removed. Despite the advantage of controlled burning, systematic controlled coverage, and in most cases double or repeated coverage of specific survey areas, the archaeological survey failed to recover sufficient numbers of large artifacts for the kinds of precise analysis that archaeology can usually afford. The number of case shot, .69 caliber and .75 caliber balls, weapon parts, and buttons were insufficient for clear analysis (Figures 4.3, 4.4, 4.5, 4.6, 4.8, 4.12, and 4.14). Only by combining ammunition distributions do tentative patterns appear. Meanwhile, buckshot was found in tremendous quantities and allowed both micro and macro analysis, again in combination with other ammunition distributions. Clearly, this phenomena is the result of past relic collecting. Large objects were desirable and taken, the smaller, less desirable objects, like buckshot, were missed. The result is the frustrating two edged sword of battlefield archaeology. We were most fortunate that collectors allowed access to their collections and generously cooperated with our study by going over maps and revisiting the site. At the same time, their removal of large diagnostic artifacts destroyed the best evidence of battlefield maneuvers. Overall, the archaeology has been well worth the effort in providing a collection of battle artifacts for the public trust, providing solid, irrefutable physical evidence of the main flow of the battle, and in revealing tantalizing clues to some specific moments. We remain realistically committed to salvaging archaeological data through future collector interviews and surveys and all the benefits that these efforts can provide toward understanding the past, while lamenting what might have been.

Final Thoughts and Recommendations

Despite our regret that the archaeology is thirty years late, the combined collector's and archaeological survey funded by PCF and the National Park Service has been an unprecedented opportunity to study a Revolutionary War battle and has provided an amazing array of artifactual and archaeological data for future research. We are very humbled to have been given the opportunity to conduct these surveys. We are also very appreciative of the efforts of PCF to place this battlefield within the public trust. It should be noted that this particular project has been fieldwork heavy and analysis light in terms of time and effort. The unique opportunity to cover much larger areas of the battlefield than originally planned in our research design was a result of the controlled burn and was a temptation impossible to resist. We did not know then and do not know now if we will ever get another opportunity to cover so much territory. It seemed reasonable at the time and still does today, to have expended most of the project time in the field collecting data. Now that it is collected, the data will be available for future researchers to glean additional insights into the battle of Camden. With this in mind, we offer some final recommendations for future work.

The entire artifact collection could be evaluated in greater detail and additional maps generated which might add to the battle interpretation. Our primary effort was to identify objects in basic terms. More work should be done in the future.

Of course, we would like to see additional fieldwork. This should be arranged as future controlled burns are planned and executed. Systematic metal detecting east of areas 54 and 50, even a few samples, would provide negative evidence to further anchor the extent of the battle lines. In other words, we would expect to find few artifacts there, but conducting the work would provide further proof of the battle's main combat locations.

The hill side west and north of area 34 leading to the depression where we found a large number of buckshot (firebreak 47) is likely to contain significant amounts of battle artifacts. We are convinced this is the immediate escape route of the right flank of the American army.

Sampling of the hill slope across the DAR park to the west and northwest is important, again for its expected negative evidence which, anchors the main battlefield to the east and south.

The ridge in the extreme northwestern portion of the battlefield should be covered some day in the future. Collectors have found a number of important artifacts there, including burials and it must be searched (Smith, Legg, and Leader 2009). It would appear that there was a stand by some Americans at that location. This work will have to wait thinning and a controlled burn, but burning should not occur without planning for some systematic sampling immediately afterward.

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Appendix I: The Catalog/Provenience System.

The number assigned to each object includes three elements, and appears thus: 00-000-000. The elements include:

Collection Code: the initial two digits.

The Collection Code has been assigned as follows:

01 Anonymous Collector 1.
02 Anonymous Collector 2.
03 Joe Henderson.
04 Bruce Meyer.
05 Calvin Keys.
06 Merle McGee (not recorded, deceased).
07 Ken Hamilton.
08 Arnold Stone.
09 Steve Mahoney.
10 Ray Hunt.
11 Don Knight.
12 Anonymous Collector 3 (not recorded).
13 William C. Major.
14 Dale Williams.
15 Cantey Haile.
16 Anonymous Collector 4.
17 Anonymous Collector 5.
18 Anonymous Collector 6 (not recorded).
19 Number not used.
20 1998 metal detector collection area.
21 Reserved for artifacts found during the 2001-2004 project, outside of any metal detector collection area.
22 2004 metal detector collection area (former DAR property).
23 2004 metal detector collection area.
24 2004 metal detector collection area.
25 2004 metal detector collection area.
26 2004 metal detector collection area.
27 2004 metal detector collection area.
28 2004 metal detector collection area.
29 2005-2006 metal detector collection area.
30 2005-2006 metal detector collection area.
31 2005-2006 metal detector collection area.
32 2005-2006 metal detector collection area.
33 2005-2006 metal detector collection area.
34 2005-2006 metal detector collection area.
35 2005-2006 metal detector collection area.

36 Reserved for artifacts found during the 2005-2007 project, outside of any metal detector collection area.
37 2005-2006 metal detector collection area.
38 2007 fire break metal detector collection.
39 2007 fire break metal detector collection.
40 2007 fire break metal detector collection.
41 2007 fire break metal detector collection.
42 2007 fire break metal detector collection.
43 2007 fire break metal detector collection.
44 2007 fire break metal detector collection.
45 2007 fire break metal detector collection.
46 2007 fire break metal detector collection.
47 2007 fire break metal detector collection.
48 2007 metal detector collection area.
49 2007 metal detector collection area.
50 2007 metal detector collection area.
51 2007 metal detector collection area.
52 2007 metal detector collection area.
53 2007 metal detector collection area.
54 2007 metal detector collection area.
55 2007 metal detector collection area.
56 2007 metal detector collection area (negative).
57 2007 metal detector collection area.
58 Number not used.
59 2007 metal detector collection area.
60 Burial #1.
61 Reserved for Burial #2.
62 Burial #3.
63 Reserved for Burial #4.
64 Reserved for Burial #5.
65 Reserved for Burial #6.
66 Reserved for Burial #7.
67 Reserved for Burial #8.
68 Number not used.
69 Number not used.
70 2007 metal detector collection area.
71 2007 metal detector collection area.
72 2007 metal detector collection area.
73 2007 metal detector collection area.
74 2007 metal detector collection area.
75 2007 metal detector collection area.
76 2007 metal detector collection area.
77 2007 metal detector collection area.
78 2007 metal detector collection area.

Provenience Code: the middle three digits.

The provenience code signifies an artifact GPS coordinate or a described location within a particular collection.

Item Code: the final three digits.

The item code numbers multiple objects within the same provenience.

A Functional Class Code is also assigned to each artifact to facilitate topical map layers. The codes assigned include:

S Lead shot, including musket balls, buckshot, etc.
A Arms and accoutrements artifacts, excluding ammunition.
C Clothing artifacts.
G Iron and lead case shot (canister) balls.
M Miscellaneous artifacts, possibly or probably from the battle.
N Miscellaneous artifacts unrelated to the battle.